

Exhibit 6



GM CONFIDENTIAL

Page 1 of 10

GM Evaluation Report

Vehicle Program	Requirement	Procedure	VPP / VIA / UPC	Model Year	Model No.	AR/ Report No.
Multiple	N/A	Ignition Switch Test	70.02.05	1997-2017	Multiple	2014-03-24-FR1

Title: On-Road and Static Evaluations of Ignition Switch

Requestor: Global Vehicle Engineering Report Type: Development Method: Hardware Based

Report Date: 8-Jan-16 Evaluation Dates: 24-Mar-14 to 8-Oct-14 Report Status: Final

Objective:

To quantify ignition system performance when subject to inertial events, driver knee contact, and hang tag conditions. Testing was performed to quantify performance as-built, as well as to validate potential remedies in the cases of recalled vehicles.

Conclusion:

The recorded data have been reviewed and are valid for analysis of the designs evaluated. The measurements were performed by the Field Response Team of the Vehicle Systems Engineering organization and the Engineering Measurements (RLDA) Group of the Vehicle Dynamics Center at the Milford Proving Ground (MPG).

Recommendation:

N/A

Design Evaluated		
Part / Test Object Name(s)	Vehicle/ Buck / PT / Part No. / RPO	Revision Date / Level
See Figure A1 for test vehicle content		

Authors: Valarie Boatman, Jacob Gannon, Ali Seyam, Peter Shear	Approver: Daniel Fosmer
Title: Field Response Team, Test Engineers/Technician	Title: Field Response Team, Supervisor
Location: Milford Proving Ground	Location: Milford Proving Ground



GM CONFIDENTIAL

Page 2 of 10

GM Evaluation Report

Vehicle Program	Requirement	Procedure	VPP / VIA / UPC	Model Year	Model No.	AR/ Report No.
Multiple	N/A	Ignition Switch Test	20.01	1997-2017	Multiple	2014-03-24-FR1

Requirements:

The data were measured to meet the objective of this evaluation.

Background:

Reference RLDA projects 2014-02-25-RLDA2 and 2014-04-16-RLDA2 (available in the Structural Durability Loads Database) for previous evaluations.

Analysis Model:

On-Road Inertial Testing

Visual inspection methods were used to determine key position during on-road events. GMW17290 (Evaluation of Keyed Ignition Robustness to Road Inertial Inputs) describes these analysis methods.

Knee Key Testing

The evaluators were asked to attempt to cause rotation of the ignition key from run to the accessory or off position by using their knee. They were then asked to assess the ease of doing so and describe their seated position. GMW17225 (Power Mode Robustness to Driver Knee Contact) describes these analysis methods.

Hang Tag Testing

The evaluators were asked to place the key tag in various positions with their hand in search of a position where the key tag could be trapped, bind, or catch on any surrounding components. GMW17226 (Ignition Hang Tag Evaluation Procedure) describes these analysis methods.

Assumptions / Limitations:

On-Road Inertial Testing

Variability in driver input, road conditions, vehicle performance, transducer performance, and weather affect the measured data. Identified data anomalies are listed in the comments section of Figure A8, "Run Log".

Knee Key Testing

The test is subjective and limited in the number of evaluators.

Hang Tag Testing

The test is subjective and conservative with intent to identify and validate robustness to potential hang tag conditions.

GM Evaluation Report

Vehicle Program	Requirement	Procedure	VPP / VIA / UPC	Model Year	Model No.	AR/ Report No.
Multiple	N/A	Ignition Switch Test	20.01	1997-2017	Multiple	2014-03-24-FR1

Equipment:

On-Road Inertial Testing

Key Rings and Weight – Three separate 50 mm inner diameter key rings with total key weights of 0.31 kg (0.70 lb), 0.29 kg (0.63 lb), and 0.25 kg (0.55 lb). Two separate 35 mm inner diameter key rings with total key weights of 0.18 kg (0.40 lb) and 0.14 kg (0.30 lb). One 25 mm inner diameter key ring with a total key weight of 0.10 kg (0.20 lb).



Example 0.2 lb Key Weight



Example 0.7 lb Key Weight

Data Recorder and Accelerometer(s) – In some instances, the test vehicle was equipped with an accelerometer(s) and LMS SCADAS digital data acquisition system to measure the acceleration in the proximity of the ignition switch. The digital data recorder sampled acceleration data at 1024 Hz with a low pass anti-alias filter set at 300 Hz. The accelerometer(s) was DC type with a performance bandwidth complementary to or exceeding the anti-alias filter. Recording equipment, sample rate, and anti-aliasing filter are identified in Figure A4. Recorded channel information, including transducer types and sensitivities, are identified in Figure A5.

Torque Meter – The MARK-10 digital torque indicator was used for system torque and ignition switch torque measurements.

Mark-10 digital torque indicator: Model-BGI S/N-43001 Equipment ID-TK107861

Mark-10 torque transducer: Model-STJ12 S/N-37318 Equipment ID-TK107860

Pull-Down Force Meter – A digital force meter was used for pull-down force testing.

Exttech Digital Force Meter: Model 475040 S/N-L621629 Equipment ID-MC7162

Inclinometer – An inclinometer with resolution of one (1) degree. Various inclinometers were utilized during testing, but all were verified using a Mitutoyo digital inclinometer.

Mitutoyo digital inclinometer: Model-PRO 360-950-317 S/N-13092032 Equipment ID-NV028530

GM Evaluation Report

Vehicle Program	Requirement	Procedure	VPP / VIA / UPC	Model Year	Model No.	AR/ Report No.
Multiple	N/A	Ignition Switch Test	20.01	1997-2017	Multiple	2014-03-24-FR1

Knee Key Testing

Tape measure / scale

Calipers

Inclinometer – An inclinometer with resolution of one (1) degree.

Hang Tag Testing

Rigid key tag approximately 90 mm in length and 40 mm in width. The key tag had a single key ring, approximately 28 mm inner diameter with wire thickness approximately 2 mm, attached in a way to minimize twist or movement between the key tag and the ring. Tag material was stiff, rigid leather.



Example Rigid Key Tag

Camera

Tape measure / scale

Calipers

Inclinometer – An inclinometer with resolution of one (1) degree.

GM Evaluation Report

Vehicle Program	Requirement	Procedure	VPP / VIA / UPC	Model Year	Model No.	AR/ Report No.
Multiple	N/A	Ignition Switch Test	20.01	1997-2017	Multiple	2014-03-24-FR1

Procedure / Method:

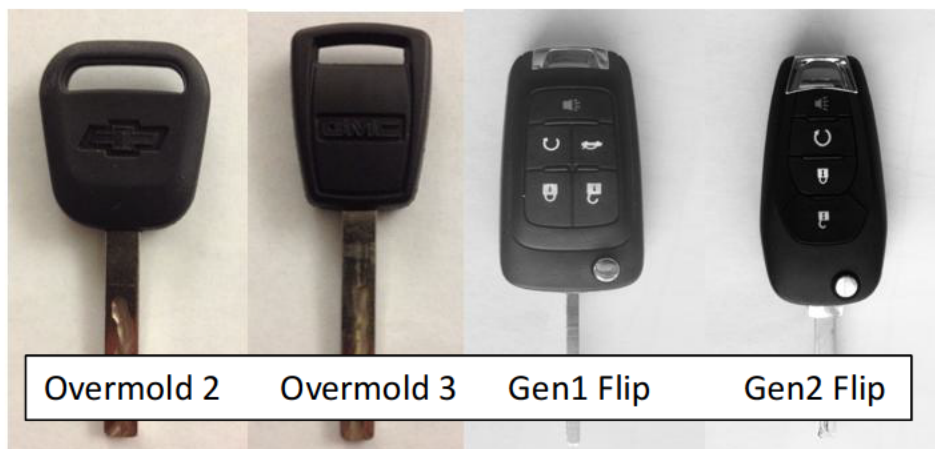
Vehicle Modifications

All vehicle and ignition key modifications are noted in the "Vehicle Modifications" and "Vehicle Specification / Configuration Notes" sections of Figure A1. In some cases steering column shrouding or surrounding dash trim panels were removed to provide a mounting surface for the accelerometer(s). These modifications can be seen through the photographs in Appendix B.

Various key configurations including, but not limited to, those shown below were evaluated during portions of this testing.



Example Overmold 1 key configurations



Example Overmold 2, Overmold 3, and Flip key configurations

GM Evaluation Report

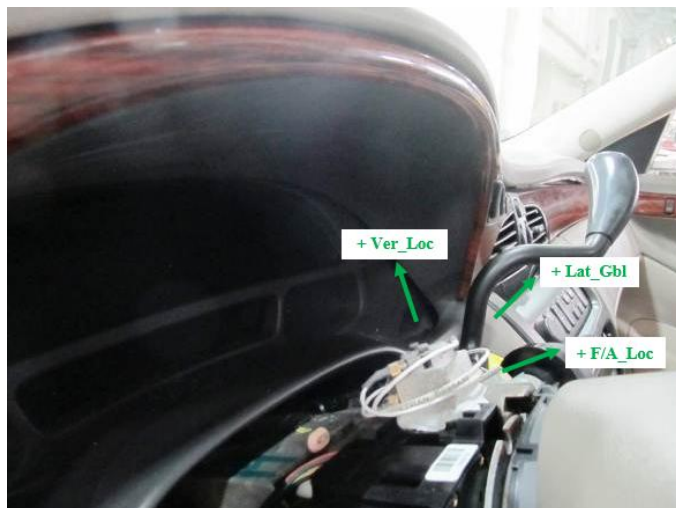
Vehicle Program	Requirement	Procedure	VPP / VIA / UPC	Model Year	Model No.	AR/ Report No.
Multiple	N/A	Ignition Switch Test	20.01	1997-2017	Multiple	2014-03-24-FR1

Measurement Methods

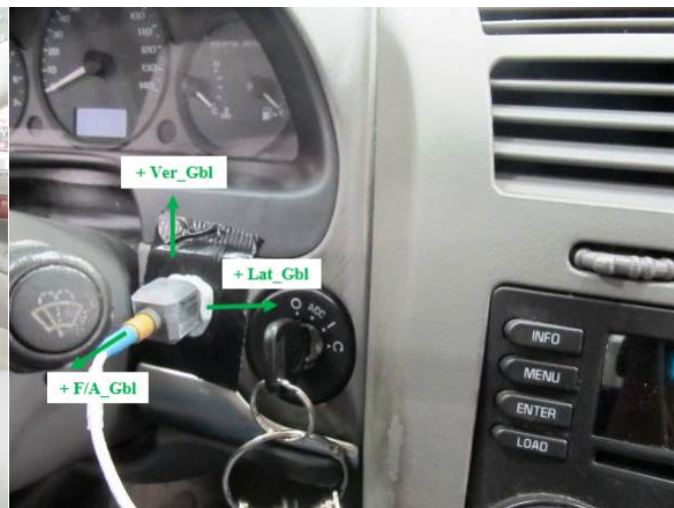
On-Road Inertial Testing

In some instances, ignition switch acceleration levels were measured. In vehicles with steering column mounted ignition systems, a tri-axial accelerometer was bonded to the steering column near the ignition system. In vehicles with dash mounted ignition systems, a tri-axial accelerometer was bonded to an area on the dashboard near the ignition system. A GPS antenna was used in conjunction with the SCADAS data recorder to record test vehicle speed and location.

In some instances, a NeoVI Pro was used to decode the CAN (Controller Area Network) vehicle bus system power mode. It was later determined that visual inspection of the key state correlated 100% with this measurement method. When performing visual inspections, a voltage trigger was used as an event marker to identify if / when unintended ignition key rotation occurred.



Example Column Mounted Tri-Axial Accelerometer



Example Dash Mounted Tri-Axial Accelerometer

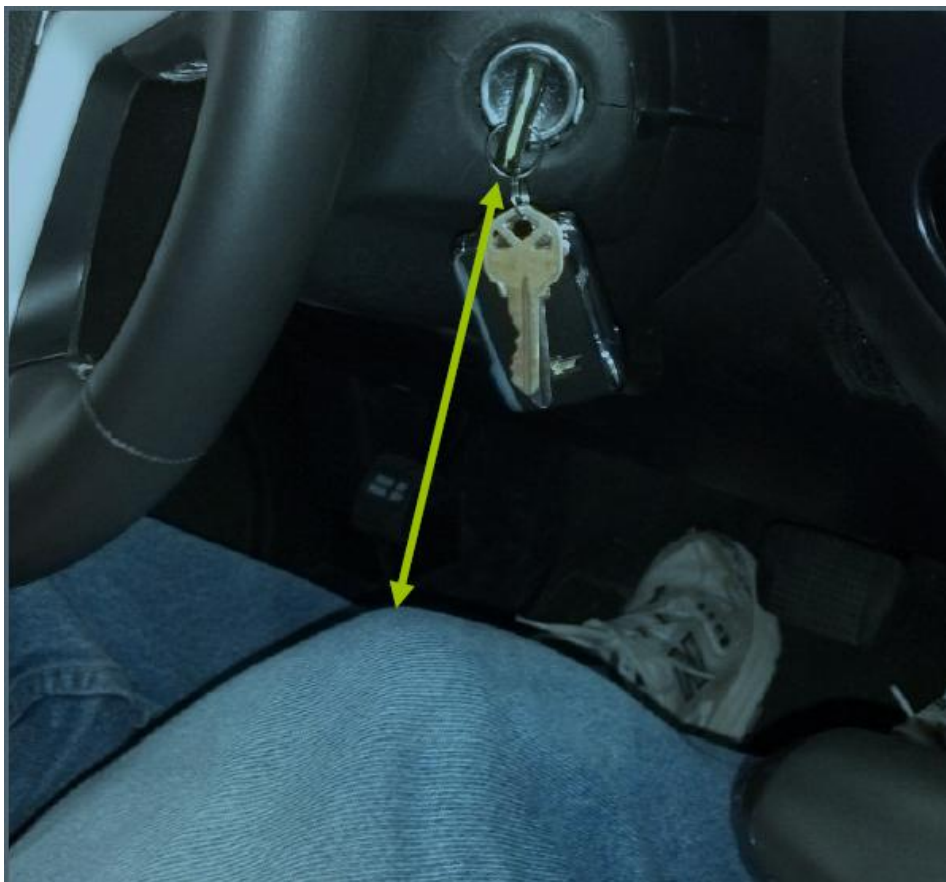
A list of all recorded data channels, including brief descriptions of the measurement methods, is given in Figure A5. Further details regarding accelerometer locations can be seen through the photographs in Appendix B.

GM Evaluation Report

Vehicle Program	Requirement	Procedure	VPP / VIA / UPC	Model Year	Model No.	AR/ Report No.
Multiple	N/A	Ignition Switch Test	20.01	1997-2017	Multiple	2014-03-24-FR1

Knee Key Testing

With the evaluator seated in the driver seat, the shortest, straight-line distance from the driver's knee to the key head with the ignition key in the run position was measured. In most evaluations, the measurements were done with the driver's foot in three positions: foot on gas, foot on brake, and relaxed. In some cases, where the ignition key also had a detached fob, these measurements were repeated for the distance between the driver's knee and fob.



Knee key sample measurements



GM CONFIDENTIAL

Page 8 of 10

GM Evaluation Report

Vehicle Program	Requirement	Procedure	VPP / VIA / UPC	Model Year	Model No.	AR/ Report No.
Multiple	N/A	Ignition Switch Test	20.01	1997-2017	Multiple	2014-03-24-FR1

Hang Tag Testing

If hang tag conditions were identified, the evaluator photographed or recorded video of the condition(s) and documented the resulting behavior, e.g., unintended ignition key rotation or steering wheel movement restriction. The evaluator then measured and recorded the minimum, straight line distance from the ignition key head to the location where the key tag contacted the surrounding area.



Hang tag examples

GM Evaluation Report

Vehicle Program	Requirement	Procedure	VPP / VIA / UPC	Model Year	Model No.	AR/ Report No.
Multiple	N/A	Ignition Switch Test	20.01	1997-2017	Multiple	2014-03-24-FR1

Test Methods

On-Road Inertial Testing

The vehicle and instrumentation setup/operation were checked prior to recording test data.

In most cases, on-road inertial data were collected at ballast conditions approximately equivalent to LVW (Light Vehicle Weight, which is defined as vehicle plus driver and recording equipment).

Schedules

On-Road Inertial Testing

On-road inertial data were measured on schedules of the GMW17290 (Evaluation of Keyed Ignition Robustness to Road Inertial Inputs). The detailed "Run Log" is given in Figure A8.

Knee Key Testing

Knee key data were measured using elements of the GMW17225 (Power Mode Robustness to Driver Knee Contact).

Hang Tag Testing

Hang tag data were measured using elements of the GMW17226 (Ignition Hang Tag Evaluation Procedure).

Results:

On-Road Inertial Testing

The data were processed and delivered to the requester as shown in the "Data Processing Flowchart", Figure A9. Overall peaks for the processed data channels are given in Figure A11. The ignition key state during on-road inertial events is documented in the "Acceleration Data Run Log" (Figure A8), "Test Vehicle Worksheets" (Appendix C), and "Results Summary" (Appendix D).

Knee Key Testing

The knee key data were delivered to the requester and documented in the "Test Vehicle Worksheets" (Appendix C) and "Results Summary" (Appendix D).

Hang Tag Testing

The hang tag data were delivered to the requester and documented in the "Test Vehicle Worksheets" (Appendix C) and "Results Summary" (Appendix D).

PRTS Issues:

- 1573016 - Ignition Switch, Steering Column – Engine Shut Off During Testing
- 1580716 - KEY ASM-DR LK & IGN LK FLDG (W/ R/CON DR LK XMTR)(CODED) – Vehicle intermittent stall
- 1583493 - Ignition Lock Cylinder Housing, Ignition – Steering Column – Key head orientation/location susceptible to inadvertently turning off vehicle with knee
- 1725317 - Ignition Switch, LF Interior – Driver unintentionally shut off vehicle



GM CONFIDENTIAL

Page 10 of 10

GM Evaluation Report

Vehicle Program	Requirement	Procedure	VPP / VIA / UPC	Model Year	Model No.	AR/ Report No.
Multiple	N/A	Ignition Switch Test	20.01	1997-2017	Multiple	2014-03-24-FR1

References / File Storage:

Several projects supported the development of the referenced GMW test procedures. These include, but are not limited to:

- Key Chain Length Study for Ignition Switch Inertial Test GMW
 - Ali Seyam – October 17, 2014 – Project #2014-06-01-FR1
- Key Chain Measurement Study
 - Product Usage Measurements and Applications – September 17, 2014
- Technical Assessment of Ignition Switch Test Methods, Procedures, and Analysis Techniques
 - Virginia Tech Transportation Institute – August 30, 2014

Documentation for these projects, as well as all of the collected data files, are stored on the Vehicle Systems Engineering shared drive. To obtain copies of collected data, contact the Field Response Team.

Appendix:

Appendix A - Information & Results	11
Figure A1 – Vehicle Content	15
Figure A2 – Vehicle Ballast – Not Recorded	
Figure A3 – Vehicle Trim Heights – Not Recorded	
Figure A4 – Recording Equipment	289
Figure A5 – Recorded Channel Information	387
Figure A6 – Polarity & Noise Checks – Not Recorded	
Figure A7 – Schedules / Events	487
Figure A8 – Acceleration Data Run Log	492
Figure A9 – Data Processing Flow Chart	598
Figure A10 – Static Offsets – Not Recorded	
Figure A11 – Processed Channel Information & Overall Peaks	695
Figure A12 – Index of Photographs – Not Recorded	
Appendix B - Photographs	795
Appendix C - Test Vehicle Worksheets	1002
Appendix D - Results Summary	1486

Note: Not all figures and/or photographs are available for all vehicles tested. For example, if acceleration data were not measured, Figures A4, A5, A8, A9, and A11 do not apply.

Appendix D

Results Summary

Test Vehicle Information																																									
Vehicle Workbook		AA				AB				AC				AD				AE				AF				AG				AH											
Platform		K-Car				K-Car				N-Car				H-Car				K-Car				W-Car				H-Car				K-Car											
Program		SSS				SSS				GMX130				GMX220				SSS				GMX210				GMX310				GMX310											
Model Year		1999				1999				1999				2000				2000				2000				2000				2000											
Make		Cadillac				Cadillac				Oldsmobile				Buick				Cadillac				Chevrolet				Pontiac				Pontiac											
Model		Seville				Seville				Alero				LeSabre				Seville				Impala				Bonneville				Bonneville											
VIN		1G6KY5494XU928973				1G6KY5490XU934768				1G3NL12EXXC353768				1G4HR54KAYU320651				1G6KY5496YU252494				2G1WF52E7Y9192400				1G2HK54K8Y4216064				1G2HZ5414Y4184859											
Mileage		234391				132899				174646				175839				132756				93159				96261				116734											
Keyed Ignition System Information																																									
Ignition Switch Part Number		25725312				25681506				25681506				22599340				Not Recorded				25681506				22599340				22599340				25668329				25668329			
Ignition Switch Torque (Ncm)		14.3				13.3				11.1				9.9				24.5				8.0				10.2				10.2				9.4				10.8			
System Torque (Ncm)		16.2				14.8				12.1				14.6				40.5				10.8				17.8				Not Recorded				9.6				12.6			
Pull-down Force (N)		>49				>49				Not Recorded				26.3				>49				>49				31.2				Not Recorded				25.7				>49			
Steering Column Rake Angle (deg)		N/A				N/A				N/A				N/A				35				N/A				N/A				N/A				N/A				N/A			
Key Angle (deg)		OFF				-22				-25				5				-10				-22				0				0				0				-3			
		ACC				11				8				34				40				10				32				32				30				26			
		RUN				40				40				59				60				40				61				61				60				60			
CRANK		78				78				80				90				80				77				97				97				90				94			
		Shifter Position (column/floor)		Floor		Floor		Floor		Floor		Floor		Column		Floor		Floor		Floor		Floor		Floor		Floor		Floor		Floor											
Key Position (column/dash/floor)		Dash				Dash				Dash				Dash				Column				Dash				Dash				Dash				Dash				Dash			
Inertial Test																																									
Key Type		Overmold 1		Overmold 1		Overmold 1		Overmold 1		Overmold 1		Overmold 1		Overmold 1		Overmold 1		Overmold 1		Overmold 1		Overmold 1		Overmold 1		Overmold 1		Overmold 1		Overmold 1											
Insert Type		None		One-Piece		None		None		One-Piece		None		None		None		One-Piece		None		One-Piece		None		None		None		None											
Insert Hole Size (mm)		N/A		4x4		N/A		N/A		4x4		N/A		N/A		N/A		4x4		N/A		N/A		N/A		N/A		N/A		N/A											
Key Ring Inside Diameter (mm)		25		13		25		25		13		25		25		13		13		25		25		25		25		25		25											
Number of Key Rings		1		2		1		1		2		1		1		2		1		1		1		1		1		1		1											
Special Configuration Notes		N/A		Inertial Test Not Performed		N/A		N/A		Inertial Test Not Performed		N/A		N/A		N/A		N/A		N/A		Inertial Test Not Performed		N/A		N/A		N/A		N/A											
Weight (lb)		0.70		Not Recorded		0.70		0.70		Not Recorded		0.70		0.70		0.70		Not Recorded		0.70		Not Recorded		0.70		Not Recorded		0.70		0.70											
Cubicle @ 10 mph		N		Not Recorded		N		N		Not Recorded		N		N		Not Recorded		N		N		Not Recorded		N		Not Recorded		N		N											
R&H (excluding Chatter & Angled RR)		N		Not Recorded		N		N		Not Recorded		N		N		Not Recorded		N		N		Not Recorded		N		Not Recorded		N		N											
R&H Chatter (Hz MPH/3) @ 55 to 45 mph		N		Not Recorded		N		N		Not Recorded		N		N		Not Recorded		N		N		Not Recorded		N		Not Recorded		N		N											
R&H Angled RR crossing @ 70+ mph		N		Not Recorded		N		N		Not Recorded		N		N		Not Recorded		N		N		Not Recorded		N		Not Recorded		N		N											
Pothole #1 @ 25 mph		N		Not Recorded		N		N		Not Recorded		N		N		Not Recorded		N		N		Not Recorded		N		Not Recorded		N		N											
Pothole #2 @ 25 mph		N		Not Recorded		N		N		Not Recorded		N		N		Not Recorded		N		N		Not Recorded		N		Not Recorded		N		N											
Panic stop @ 10 mph		N		Not Recorded		N		N		Not Recorded		N		N		Not Recorded		N		N		Not Recorded		N		Not Recorded		N		N											
Belgian Blocks		N		Not Recorded		N		N		Not Recorded		N		N		Not Recorded		N		N		Not Recorded		N		Not Recorded		N		N											
Knee Key Test																																									
5% Female	Ease	Not Recorded		Not Recorded		Not Recorded		Difficult		Difficult		Not Possible		Not Possible		Not Possible		Not Possible		Not Possible		Not Possible		Not Possible		Not Possible		Difficult													
	Driving Position	Not Recorded		Not Recorded		Not Recorded		Abnormal		Abnormal		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		Abnormal													
	Knee Distance from Key (mm)	Gas - 152		Gas - 152		Not Recorded		Gas - 127		Gas - 127		Gas - 165		Gas - 146		Gas - 165		Gas - 165		Gas - 127		Gas - 127		Gas - 160		Gas - 133															
	Knee Distance from Fob (mm)	Gas - 63		Gas - 76		Not Recorded		Gas - 63		Gas - 69		Not Recorded		Not Recorded		Gas - 95		Gas - 101		Gas - 76		Gas - 69		Not Recorded		Not Recorded		Not Recorded													
50% Male	Ease	Not Possible		Easy		Not Recorded		Easy		Not Recorded		Easy		Not Possible		Easy		Easy		Easy		Not Recorded		Easy		Easy		Easy													
	Driving Position	N/A		Abnormal		Not Recorded		Abnormal		Not Recorded		Abnormal		N/A		Abnormal		Abnormal		Abnormal		Not Recorded		Abnormal		Abnormal		Abnormal													
	Knee Distance from Key (mm)	Gas - 165		Gas - 165		Not Recorded		Gas - 145		Not Recorded		Gas - 160		Gas - 230		Gas - 150		Gas - 150		Gas - 165		Not Recorded		Gas - 160		Gas - 145															
	Knee Distance from Fob (mm)	Gas - 95		Gas - 100		Not Recorded		Gas - 80		Not Recorded		Not Recorded		Not Recorded		Gas - 105		Gas - 110		Gas - 120		Not Recorded		Not Recorded		Not Recorded		Not Recorded													
95% Male	Ease	Easy		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Easy		Not Possible		Not Possible		Difficult		Not Recorded		Easy		Not Recorded		Easy		Easy													
	Driving Position	Abnormal		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Abnormal		Abnormal		N/A		Abnormal		Not Recorded		Abnormal		Not Recorded		Abnormal		Abnormal													
	Knee Distance from Key (mm)	Gas - 90		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Gas - 75		Gas - 110		Gas - 107		Gas - 81		Not Recorded		Gas - 90		Not Recorded		Gas - 80		Gas - 57													
	Knee Distance from Fob (mm)	Gas - 20		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Gas -10		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded													
Hang Tag Test																																									
Condition Possible? (Yes/No)		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded													
Comments		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded													

Test Vehicle Information																									
Vehicle Workbook		AI				AJ				AK				AL				AM							
Platform		K-Car				G-Car				N-Car				S/T Truck				N-Car							
Program		SSS				GMX160				GMX130				GMT330				P90							
Model Year		2001				2001				2001				2002				2002							
Make		Cadillac				Oldsmobile				Pontiac				Chevrolet				Chevrolet							
Model		Seville				Aurora				Grand Am				Blazer				Malibu							
VIN		1G6KY54941U294796				1G3GR64H614286406				1G2NV12E61M644588				1GNDT13W02K200907				1G1ND52502M687112							
Mileage		151488				176831				119586				126092				147000							
Keyed Ignition System Information																									
Ignition Switch Part Number		Incorrectly Recorded				Incorrectly Recorded				Incorrectly Recorded				Incorrectly Recorded				Not Recorded				Not Recorded			
Ignition Switch Torque (Ncm)		9.9				8.9				8.7				8.7				Not Recorded				10.7		10.7	
System Torque (Ncm)		10.5				9.4				11.9				11.9				25.2				15.0		15.0	
Pull-down Force (N)		>49				>49				Not Recorded		39.3		Not Recorded		>49		31.4		Not Recorded					
Steering Column Rake Angle (deg)		N/A				N/A				N/A				N/A				39				N/A		N/A	
Key Angle (deg)	OFF	-24				-20				3				3				-12				Not Recorded		Not Recorded	
	ACC	14				20				34				34				36				Not Recorded		Not Recorded	
	RUN	42				40				62				62				61				60		60	
	CRANK	76				70				101				101				97				Not Recorded		Not Recorded	
Shifter Position (column/floor)		Floor				Floor				Floor				Floor				Column				Floor			
Key Position (column/dash/floor)		Dash				Dash				Dash				Dash				Column				Dash			
Inertial Test																									
Key Type		Overmold 1		Overmold 1		Overmold 1		Overmold 1		Overmold 1		Overmold 1		Overmold 1		Overmold 1		Overmold 1		Overmold 1					
Insert Type		None		One-Piece		None		One-Piece		None		One-Piece		None		One-Piece		None		One-Piece					
Insert Hole Size (mm)		N/A		4x4		N/A		4x4		N/A		4x4		N/A		4x4		N/A		4x4					
Key Ring Inside Diameter (mm)		25		13		25		13		25		13		25		13		25		13					
Number of Key Rings		1		2		1		2		1		2		1		2		1		2					
Special Configuration Notes		N/A		N/A		N/A		Inertial Test Not Performed		N/A		N/A		N/A		N/A		Center Stack Trim Panel Removed		Center Stack Trim Panel Removed. Accel moved for clearance to key		Center Stack Trim Panel Removed			
Weight (lb)		0.70	0.63	0.55	0.40	0.70	0.70		Not Recorded		0.70	0.63	0.70		0.70		0.70	0.63	0.70	0.63	0.55	0.40	0.70		
Cubicle @ 10 mph		N	N/A	N/A	N/A	N/A	N		Not Recorded		N	N/A	N/A		N		N	N/A	N	N/A	N/A	N/A	N		
R&H (excluding Chatter & Angled RR)		Y	Y	N	N/A	N	N		Not Recorded		N	N/A	N/A		N		N	N/A	N	N/A	N/A	N/A	N		
R&H Chatter (Hz MPH/3) @ 55 to 45 mph		N	N/A	N/A	N/A	N/A	N		Not Recorded		N	N/A	N/A		N		N	N/A	N	N/A	N/A	N/A	N		
R&H Angled RR crossing @ 70+ mph		Y	Y	Y	N	N	N		Not Recorded		N	N/A	N/A		N		N	N/A	N	N/A	N/A	N/A	N		
Pothole #1 @25 mph		N	N/A	N/A	N/A	N/A	N		Not Recorded		Y	N	N		N		Y	N	Y	Y	Y	N	N		
Pothole #2 @ 25 mph		Y	N	N	N	N	N		Not Recorded		N	N/A	N/A		N		N	N/A	N	N/A	N/A	N/A	N		
Panic stop @ 10 mph		N	N/A	N/A	N/A	N/A	N		Not Recorded		N	N/A	N/A		N		N	N/A	N	N/A	N/A	N/A	N		
Belgian Blocks		N	N/A	N/A	N/A	N/A	N		Not Recorded		N	N/A	N/A		N		N	N/A	N	N/A	N/A	N/A	N		
Knee Key Test																									
5% Female	Ease	Easy				Easy				Not Possible				Not Possible				Difficult				Not Recorded		Not Recorded	
	Driving Position	Abnormal				Abnormal				N/A				N/A				Abnormal				Not Recorded		Not Recorded	
	Knee Distance from Key (mm)	Gas - 127				Gas - 127				Gas - 190				Gas - 190				Gas - 133				Not Recorded		Gas - 177	
	Knee Distance from Fob (mm)	Gas - 50				Gas - 55				Gas - 101				Gas - 114				Not Recorded		Not Recorded		Gas - 101		Not Recorded	
50% Male	Ease	Easy				Easy				Medium				Not Possible				Easy				Not Recorded		Not Recorded	
	Driving Position	Abnormal				Abnormal				Abnormal				N/A				Abnormal		Not Recorded		Not Recorded			
	Knee Distance from Key (mm)	Gas - 150				Gas - 150				Gas - 200				Gas - 200				Gas - 150		Not Recorded		Gas - 185 Brake - 158 Relaxed - 185		Not Recorded	
	Knee Distance from Fob (mm)	Gas - 105				Gas - 110				Gas - 125				Gas - 145				Not Recorded		Not Recorded		Gas - 105 Brake - 95 Relaxed - 130		Not Recorded	
95% Male	Ease	Easy				Not Recorded				Difficult				Not Recorded				Easy		Not Recorded		Not Recorded			
	Driving Position	Abnormal				Not Recorded				Abnormal				Not Recorded				Abnormal		Not Recorded		Not Recorded			
	Knee Distance from Key (mm)	Gas - 58				Not Recorded				Gas - 93				Not Recorded				Gas - 50		Not Recorded		Gas - 90			
	Knee Distance from Fob (mm)	Not Recorded				Not Recorded				Not Recorded				Not Recorded				Not Recorded		Not Recorded		Fob - 45			
Hang Tag Test																									
Condition Possible? (Yes/No)		Not Recorded				Not Recorded				Not Recorded				Not Recorded				Not Recorded				Not Recorded			
Comments		Not Recorded				Not Recorded				Not Recorded				Not Recorded				Not Recorded				Not Recorded			

Test Vehicle Information																								
Vehicle Workbook		AN							AO				AP				AQ				AR			
Platform		N-Car							H-Car				N-Car				K-Car				C/K Truck			
Program		P90							GMX310				GMX130				SSS				GMT800			
Model Year		2002							2002				2002				2003				2003			
Make		Chevrolet							Pontiac				Pontiac				Cadillac				Chevrolet			
Model		Malibu							Bonneville				Grand Am				Seville				Tahoe			
VIN		1G1NE52J32M684895							1G2HX54K224146097				1G2NW52E12M678850				1G6KY54923U253912				1GNEK13Z3J114853			
Mileage		87887							237373				145484				125960				53011			
Keyed Ignition System Information																								
Ignition Switch Part Number		Not Recorded							Not Recorded		Incorrectly Recorded		Incorrectly Recorded		22599340		22599340		Incorrectly Recorded		Incorrectly Recorded		Incorrectly Recorded	
Ignition Switch Torque (Ncm)		9.6							9.6		9.9		9.9		11.5		11.5		10.1		10.1		Not Recorded	
System Torque (Ncm)		12.2							12.2		10.1		10.1		14.9		14.9		11.0		11.0		26.8	
Pull-down Force (N)		21.9							Not Recorded		28.9		Not Recorded		46.8		Not Recorded		26.9		Not Recorded		>49	
Steering Column Rake Angle (deg)		N/A							N/A		N/A		N/A		N/A		N/A		N/A		N/A		36	
Key Angle (deg)	OFF	Not Recorded							Not Recorded		0		0		-1		-1		-23		-23		-9	
	ACC	Not Recorded							Not Recorded		30		30		33		33		8		8		29	
	RUN	60							60		60		60		60		60		40		40		53	
	CRANK	Not Recorded							Not Recorded		90		90		100		100		74		74		92	
Shifter Position (column/floor)		Floor							Floor		Floor		Floor		Floor		Floor		Floor		Floor		Column	
Key Position (column/dash/floor)		Dash							Dash		Dash		Dash		Dash		Dash		Dash		Dash		Column	
Inertial Test																								
Key Type		Overmold 1			Overmold 1				Overmold 1		Overmold 1		Overmold 1		Overmold 1		Overmold 1		Overmold 1		Overmold 1		Overmold 1	
Insert Type		None			None				One-Piece		None		One-Piece		None		One-Piece		None		One-Piece		None	
Insert Hole Size (mm)		N/A			N/A				4x4		N/A		4x4		N/A		4x4		N/A		4x4		N/A	
Key Ring Inside Diameter (mm)		25			25				25		25		13		25		13		25		13		25	
Number of Key Rings		1			1				1		1		2		1		2		1		2		1	
Special Configuration Notes		Center Stack Trim Panel Removed			Center Stack Trim Panel Installed				Center Stack Trim Panel Installed		N/A		Inertial Test Not Performed		N/A		N/A		N/A		N/A		N/A	
Weight (lb)		0.70	0.63	0.55	0.40	0.70	0.63	0.55	0.70		0.70		Not Recorded		0.70	0.63	0.55	0.40	0.70	0.70	0.63	0.70	0.70	
Cubicle @ 10 mph		N	N/A	N/A	N/A	N	N/A	N/A	N		N		Not Recorded		N	N/A	N/A	N/A	N/A	N	N/A	N/A	N	
R&H (excluding Chatter & Angled RR)		N	N/A	N/A	N/A	Y	N	N/A	N		N		Not Recorded		N	N/A	N/A	N/A	N/A	N	N/A	N/A	N	
R&H Chatter (Hz MPH/3) @ 55 to 45 mph		Y	Y	Y	N	Y	Y	N	N		N		Not Recorded		Y	Y	N	N/A	N	N/A	N/A	N		
R&H Angled RR crossing @ 70+ mph		Y	N	N/A	N/A	Y	Y	N	N		N		Not Recorded		N	N/A	N/A	N/A	N/A	Y	N	N	N	
Pothole #1 @25 mph		Y	Y	Y	N	Y	Y	N	N		N		Not Recorded		Y	Y	Y	N	N	N/A	N/A	N		
Pothole #2 @ 25 mph		Y	Y	N	N/A	N	N/A	N/A	N		N		Not Recorded		N	N/A	N/A	N/A	N/A	N	N/A	N/A	N	
Panic stop @ 10 mph		N	N/A	N/A	N/A	N	N/A	N/A	N		N		Not Recorded		N	N/A	N/A	N/A	N/A	N	N/A	N/A	N	
Belgian Blocks		Y	Y	N	N/A	N	N/A	N/A	N		N		Not Recorded		N	N/A	N/A	N/A	N/A	N	N/A	N/A	N	
Knee Key Test																								
5% Female	Ease	Not Recorded							Not Possible		Not Possible		Difficult		Not Possible		Difficult		Not Recorded		Difficult		Not Possible	
	Driving Position	Not Recorded							N/A		N/A		Abnormal		N/A		Abnormal		Not Recorded		Abnormal		N/A	
	Knee Distance from Key (mm)	Not Recorded							Gas - 190		Gas - 185		Gas - 120		Gas - 120		Gas - 139		Not Recorded		Gas - 146		Gas - 146	
	Knee Distance from Fob (mm)	Not Recorded							Gas - 110		Gas - 120		Gas - 82		Gas - 88		Not Recorded		Not Recorded		Gas - 88		Gas - 76	
50% Male	Ease	Not Possible							Not Possible		Not Possible		Medium		Not Possible		Easy		Not Recorded		Easy		Not Recorded	
	Driving Position	N/A							N/A		N/A		Abnormal		N/A		Abnormal		Not Recorded		Abnormal		Not Recorded	
	Knee Distance from Key (mm)	Not Recorded							Gas - 200		Gas - 195		Gas - 180		Gas - 180		Gas - 135		Not Recorded		Gas - 155		Gas - 155	
	Knee Distance from Fob (mm)	Not Recorded							Gas - 120		Gas - 140		Gas - 130		Gas - 120		Not Recorded		Not Recorded		Gas - 90		Gas - 98	
95% Male	Ease	Not Recorded							Not Recorded		Not Recorded		Easy		Not Recorded		Easy		Not Recorded		Easy		Not Possible	
	Driving Position	Not Recorded							Not Recorded		Not Recorded		Abnormal		Not Recorded		Abnormal		Not Recorded		Abnormal		N/A	
	Knee Distance from Key (mm)	Not Recorded							Gas - 110		Gas - 125 Brake - 100 Relaxed - 145		Gas - 57		Not Recorded		Gas - 85		Not Recorded		Gas - 65		Not Recorded	
	Knee Distance from Fob (mm)	Not Recorded							Gas - 30		Gas - 60 Brake - 45 Relaxed - 80		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded	
Hang Tag Test																								
Condition Possible? (Yes/No)		Not Recorded							Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded	
Comments		Not Recorded							Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded	

Test Vehicle Information																										
Vehicle Workbook	AS				AT				AU		AV		AW			AX		AY								
Platform	W-Car				N-Car				H-Car		W-Car		K-Car			Sigma I		W-Car								
Program	GMX210				GMX130				GMX310		MS2000		GMX270			GMT265		GMX210								
Model Year	2003				2003				2003		2004		2004			2004		2004								
Make	Chevrolet				Oldsmobile				Pontiac		Buick		Cadillac			Cadillac		Chevrolet								
Model	Impala				Alero				Bonneville		Regal		Deville			SRX		Impala								
VIN	2G1WF52E139356068				1G3NL52E13C280680				1G2HX54K334129066		2G4WB52K641273076		1G6KF57934U250083			1GYEE637140187137		2G1WF52E549398468								
Mileage	158363				277723				178959		Not Recorded		90611			164466		98838								
Keyed Ignition System Information																										
Ignition Switch Part Number	22670487		22670487		Not Recorded		Not Recorded		25721650		Incorrectly Recorded		Not Recorded		Not Recorded		Incorrectly Recorded		Incorrectly Recorded		22670487		22670487			
Ignition Switch Torque (Ncm)	8.9		8.9		9.4		9.4		9.2		17.6		11.8		11.8		9.6		9.6		10.4		10.4			
System Torque (Ncm)	13.3		13.3		11.2		11.2		10.6		29.8		15.0		15.0		15.6		15.6		11.2		11.2			
Pull-down Force (N)	35.2		Not Recorded		40.3		Not Recorded		20.9		>49		>49		Not Recorded		21.0		Not Recorded		43.9		Not Recorded			
Steering Column Rake Angle (deg)	N/A		N/A		N/A		N/A		N/A		40		30		30		35		35		N/A		N/A			
Key Angle (deg)	OFF		0		Not Recorded		Not Recorded		0		-47		Not Recorded		Not Recorded		-15		-15		0		0			
	ACC		30		Not Recorded		Not Recorded		30		26		Not Recorded		Not Recorded		33		33		30		30			
	RUN		60		60		60		60		64		51		51		60		60		60		60			
	CRANK		90		90		Not Recorded		Not Recorded		90		Not Recorded		Not Recorded		100		100		90		90			
Shifter Position (column/floor)	Floor		Floor		Floor		Floor		Floor		Floor		Floor		Floor		Floor		Floor		Floor		Floor			
Key Position (column/dash/floor)	Dash		Dash		Dash		Dash		Dash		Column		Column		Column		Column		Column		Dash		Dash			
Inertial Test																										
Key Type	Overmold 1		Overmold 1		Overmold 1		Overmold 1		Overmold 1		Passkey		Overmold 1		Overmold 1		Overmold 1		Overmold 1		Overmold 1		Overmold 1			
Insert Type	None		One-Piece		None		One-Piece		None		None		None		None		One-Piece		None		One-Piece		None			
Insert Hole Size (mm)	N/A		4x4		N/A		N/A		N/A		N/A		N/A		N/A		4x4		N/A		N/A		One-Piece			
Key Ring Inside Diameter (mm)	25		13		25		13		25		25		25		13		25		13		25		13			
Number of Key Rings	1		2		1		2		1		1		1		1		2		1		1		2			
Special Configuration Notes	N/A		N/A		N/A		N/A		N/A		N/A		Solid Mass Weight		N/A		N/A		N/A		N/A		N/A			
Weight (lb)	0.70	0.63	0.55	0.40	0.70	0.70	0.63	0.55	0.40	0.70	0.70	1.40	0.70	0.70	0.70	0.70	0.63	0.55	0.40	0.70	0.70	0.63	0.55	0.70		
Cubiclete @ 10 mph	N	N/A	N/A	N/A	Not Recorded	N	N/A	N/A	N/A	N	N	N	N	N	N	N	N	N/A	N/A	N/A	N/A	N/A	N	N/A	N/A	Not Recorded
R&H (excluding Chatter & Angled RR)	Y	Y	Y	N	N	N	N/A	N/A	N/A	N	N	N	N	N	N	N	Y	Y	N	N/A	N	N	N	N/A	N/A	Not Recorded
R&H Chatter (Hz MPH/3) @ 55 to 45 mph	Y	Y	Y	N	N	N	N/A	N/A	N/A	N	N	N	N	N	N	N	Y	N	N/A	N/A	N	N	N	N/A	N/A	Not Recorded
R&H Angled RR crossing @ 70+ mph	Y	Y	Y	N	N	N	N/A	N/A	N/A	N	N	N	N	N	N	N	Y	N	N/A	N/A	N	N	N	N/A	N/A	Not Recorded
Pothole #1 @25 mph	N	N/A	N/A	N/A	Not Recorded	Y	Y	Y	Y	N	N	N	N	N	N	N	Y	Y	Y	Y	N	N	Y	Y	N	N
Pothole #2 @ 25 mph	N	N/A	N/A	N/A	Not Recorded	N	N/A	N/A	N/A	N	N	N	N	N	N	N	Y	Y	Y	Y	N	N	N	N/A	N/A	Not Recorded
Panic stop @ 10 mph	N	N/A	N/A	N/A	Not Recorded	N	N/A	N/A	N/A	N	N	N	N	Y	N	N	N	N/A	N/A	N/A	N/A	N/A	N	N/A	N/A	Not Recorded
Belgian Blocks	Y	Y	Y	N	N	N	N/A	N/A	N/A	N	N	N	N	N	N	N	N	N/A	N/A	N/A	N/A	N/A	Y	Y	N	N
Knee Key Test																										
5% Female	Ease	Difficult		Not Possible		Medium		Medium		Not Possible		Not Possible		Not Recorded		Not Possible		Not Possible		Difficult		Difficult		Difficult		
	Driving Position	Abnormal		N/A		Abnormal		Abnormal		N/A		N/A		Not Recorded		N/A		N/A		Abnormal		Abnormal		Abnormal		
	Knee Distance from Key (mm)	Gas - 127		Gas - 127		Gas - 150		Gas - 165		Gas - 133		Gas - 200		Not Recorded		Gas - 200		Gas - 183		Gas - 115		Gas - 114		Gas - 127		
	Knee Distance from Fob (mm)	Gas - 90		Gas - 101		Gas - 95		Gas - 100		Not Recorded		Not Recorded		Not Recorded		Gas - 125		Gas - 120		Gas - 25		Gas - 50		Gas - 50		
50% Male	Ease	Medium		Medium		Not Possible		Not Possible		Difficult		Not Possible		Not Recorded		Not Possible		Not Possible		Easy		Easy		Easy		
	Driving Position	Abnormal		Abnormal		N/A		N/A		Abnormal		N/A		Not Recorded		N/A		N/A		Abnormal		Abnormal		Abnormal		
	Knee Distance from Key (mm)	Gas - 200		Gas - 200		Gas - 205		Gas - 205		Gas - 70		Gas - 210		Not Recorded		Gas - 215		Gas - 215		Gas - 140		Gas - 140		Gas - 185		
	Knee Distance from Fob (mm)	Gas - 165		Gas - 150		Gas - 125		Gas - 150		Not Recorded		Not Recorded		Not Recorded		Gas - 140		Gas - 155		Gas - 50		Gas - 75		Gas - 130		
95% Male	Ease	Easy		Not Recorded		Not Possible		Not Possible		Easy		Not Possible		Not Recorded		Not Possible		Not Possible		Not Recorded		Not Recorded		Easy		
	Driving Position	Abnormal		Not Recorded		N/A		N/A		Abnormal		N/A		Not Recorded		N/A		N/A		Not Recorded		Not Recorded		Abnormal		
	Knee Distance from Key (mm)	Gas - 50		Not Recorded		Gas - 110		Gas - 100		Gas - 82		Gas - 87		Not Recorded		Gas - 145		Gas - 160		Not Recorded		Not Recorded		Gas - 40		
	Knee Distance from Fob (mm)	Not Recorded		Not Recorded		Gas - 30		Gas - 30		Not Recorded		Not Recorded		Not Recorded		Gas - 80		Gas - 98		Not Recorded		Not Recorded		Not Recorded		
Hang Tag Test																										
Condition Possible? (Yes/No)	Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded			
Comments	Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded			

Test Vehicle Information												
Vehicle Workbook	AZ		BA							BB		
Platform	U-Body		W-Car							N-Car		
Program	GMT250		GMX367							P90		
Model Year	2004		2004							2005		
Make	Pontiac		Pontiac							Chevrolet		
Model	Aztek		Grand Prix							Malibu		
VIN	3G7DA03E64S535546		2G2WP522X41276749							1G1ND52F85M142436		
Mileage	Not Recorded		145744							150882		
Keyed Ignition System Information												
Ignition Switch Part Number	12450251	12450251	10310896							22688239		
Ignition Switch Torque (Ncm)	Not Recorded	Not Recorded	8.6		8.6		8.6		8.6	14.1	14.1	
System Torque (Ncm)	24.5	24.5	10.5		10.5		12.7		13.1	16.1	16.1	
Pull-down Force (N)	>49	Not Recorded	29.4		29.4	Not Recorded	Not Recorded	Not Recorded	Not Recorded	32.1	Not Recorded	
Steering Column Rake Angle (deg)	36	36	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Key Angle (deg)	OFF	-15	3		3		3		3	1	1	
	ACC	26	26		26		26		26	36	36	
	RUN	65	65		55		55		55	60	60	
	CRANK	97	97		91		91		91	96	96	
Shifter Position (column/floor)	Floor	Floor	Floor		Floor	Floor	Floor	Floor	Floor	Floor	Floor	
Key Position (column/dash/floor)	Column	Column	Dash		Dash	Dash	Dash	Dash	Dash	Dash	Dash	
Inertial Test												
Key Type	Overmold 1	Overmold 1	Overmold 1			Overmold 1	Overmold 1 - New Cut	Overmold 1 - New Cut	Overmold 1 - New Cut	Overmold 1	Overmold 1	
Insert Type	None	One-Piece	None			One-Piece	Clamshell	Two-Piece	None	None	One-Piece	
Insert Hole Size (mm)	N/A	4x4	N/A			4x4	4x6	4x6	N/A	N/A	4x4	
Key Ring Inside Diameter (mm)	25	13	25			13	13	13	25	25	13	
Number of Key Rings	1	2	1			2	2	2	1	1	2	
Special Configuration Notes	N/A	Inertial Test Not Performed	N/A			N/A	N/A	N/A	N/A	N/A	N/A	
Weight (lb)	0.70	0.70	0.70	0.63	0.55	0.40	0.30	0.70	0.70	0.70	Not Recorded	
Cubicle @ 10 mph	N	Not Recorded	N	N/A	N/A	N/A	N/A	Not Recorded	N	N	Not Recorded	
R&H (excluding Chatter & Angled RR)	N	Not Recorded	N	N/A	N/A	N/A	N/A	N	N	N	Not Recorded	
R&H Chatter (Hz MPH/3) @ 55 to 45 mph	N	Not Recorded	N	N/A	N/A	N/A	N/A	N	N	Not Recorded	Not Recorded	
R&H Angled RR crossing @ 70+ mph	N	Not Recorded	Y	Y	Y	Y	N	N	N	Not Recorded	Not Recorded	
Pothole #1 @ 25 mph	N	Not Recorded	Y	N	N/A	N/A	N/A	N	N	N	Not Recorded	
Pothole #2 @ 25 mph	N	Not Recorded	Y	Y	N	N/A	N/A	N	N	N	Not Recorded	
Panic stop @ 10 mph	N	Not Recorded	N	N/A	N/A	N/A	N/A	Not Recorded	N	N	Not Recorded	
Belgian Blocks	N	Not Recorded	Y	Y	Y	N	N/A	N	N	N	Not Recorded	
Knee Key Test												
5% Female	Ease	Difficult	Difficult	Not Possible			Easy	Not Possible	Easy	Not Recorded	Not Possible	
	Driving Position	Abnormal	Abnormal	N/A			Abnormal	N/A	Abnormal	Not Recorded	N/A	
	Knee Distance from Key (mm)	Gas - 209	Gas - 209	Gas - 165			Gas - 165	Gas - 160 Brake - 135 Relaxed - 110	Not Recorded	Not Recorded	Gas - 158	
	Knee Distance from Fob (mm)	Gas - 139	Gas - 152	Gas - 95			Gas - 95	Not Recorded	Not Recorded	Not Recorded	Gas - 95	
50% Male	Ease	Not Possible	Not Recorded	Easy			Medium	Easy	Medium	Not Recorded	Not Possible	
	Driving Position	N/A	Not Recorded	Abnormal			Abnormal	Abnormal	Abnormal	Not Recorded	N/A	
	Knee Distance from Key (mm)	Gas - 220 Brake - 200 Relaxed - 225	Not Recorded	Gas - 165			Gas - 165	Gas - 195 Brake - 195 Relaxed - 170	Gas - 200 Brake - 200 Relaxed - 175	Not Recorded	Gas - 125	
	Knee Distance from Fob (mm)	Gas - 165 Brake - 150 Relaxed - 210	Not Recorded	Gas - 90			Gas - 95	Not Recorded	Not Recorded	Not Recorded	Gas - 40	
95% Male	Ease	Medium	Not Recorded	Easy			Easy	Not Recorded	Easy	Not Recorded	Medium	
	Driving Position	Abnormal	Not Recorded	Abnormal			Abnormal	Not Recorded	Abnormal	Not Recorded	Abnormal	
	Knee Distance from Key (mm)	Gas - 110	Not Recorded	Gas - 61			Gas - 90 Brake - 99 Relaxed - 80	Not Recorded	Gas - 78 Brake - 80 Relaxed - 60	Not Recorded	Gas - 43	
	Knee Distance from Fob (mm)	Gas - 55	Not Recorded	Not Recorded			Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	
Hang Tag Test												
Condition Possible? (Yes/No)	Not Recorded	Not Recorded	No			Not Recorded	No	Not Recorded	Not Recorded	Not Recorded	Not Recorded	
Comments	Not Recorded	Not Recorded	Not Recorded			Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	

Test Vehicle Information											
Vehicle Workbook		BC				BD		BE		BF	
Platform		N-Car				U-Body		Epsilon I		C/K Truck	
Program		GMX130				GMT257		GMX380		GMT800	
Model Year		2005				2006		2006		2006	
Make		Pontiac				Buick		Chevrolet		Chevrolet	
Model		Grand Am				Rendezvous		Malibu		Silverado 1500LD	
VIN		1G2NE52E65M141480				3G5DA03L06S629271		1G1ZT51896F287904		1GCEK19T26Z180833	
Mileage		117293				58817		108474		75617	
Keyed Ignition System Information											
Ignition Switch Part Number		22688239				13450251		Incorrectly Recorded		Incorrectly Recorded	
Ignition Switch Torque (Ncm)		13.4	13.4	13.4	13.4	Not Recorded	Not Recorded	13.7	Not Recorded	Not Recorded	Not Recorded
System Torque (Ncm)		15.3	17.4	15.3	15.3	18.8	23.3	23.3	15.6	24.2	24.2
Pull-down Force (N)		32.1	Not Recorded	Not Recorded	Not Recorded	Not Recorded	26.0	Not Recorded	39.0	>49	Not Recorded
Steering Column Rake Angle (deg)		N/A	N/A	N/A	N/A	N/A	35	35	N/A	37	37
Key Angle (deg)	OFF	0	0	0	0	0	-10	-10	-4	-6	-6
	ACC	30	30	30	30	30	38	38	26	29	29
	RUN	60	60	60	60	60	64	64	60	54	54
	CRANK	98	98	98	98	98	103	103	97	95	95
Shifter Position (column/floor)		Floor	Floor	Floor	Floor	Floor	Column	Column	Floor	Column	Column
Key Position (column/dash/floor)		Dash	Dash	Dash	Dash	Dash	Column	Column	Dash	Column	Column
Inertial Test											
Key Type		Overmold 1	Overmold 1 - New Cut	Overmold 1	Overmold 1	Overmold 1 - New Cut	Overmold 1	Overmold 1	Overmold 1	Overmold 1	Overmold 1
Insert Type		None	None	Clamshell	One-Piece	Two-Piece	None	One-Piece	None	None	One-Piece
Insert Hole Size (mm)		N/A	N/A	4x6	4x4	4x6	N/A	4x4	N/A	N/A	4x4
Key Ring Inside Diameter (mm)		25	25	13	13	13	25	13	25	25	13
Number of Key Rings		1	1	2	2	2	1	2	1	1	2
Special Configuration Notes		Incorrect Tire Pressures	Correct Tire Pressures	N/A	Inertial Test Not Performed	N/A	N/A	Inertial Test Not Performed	N/A	N/A	Inertial Test Not Performed
Weight (lb)		0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Cubicle @ 10 mph		N	N	N	Not Recorded	N	N	Not Recorded	N	N	Not Recorded
R&H (excluding Chatter & Angled RR)		N	N	N	Not Recorded	N	N	Not Recorded	N	N	Not Recorded
R&H Chatter (Hz MPH/3) @ 55 to 45 mph		N	N	N	Not Recorded	N	N	Not Recorded	N	N	Not Recorded
R&H Angled RR crossing @ 70+ mph		N	N	N	Not Recorded	N	N	Not Recorded	N	N	Not Recorded
Pothole #1 @25 mph		N	N	N	Not Recorded	N	N	Not Recorded	N	N	Not Recorded
Pothole #2 @ 25 mph		N	N	N	Not Recorded	N	N	Not Recorded	N	N	Not Recorded
Panic stop @ 10 mph		N	N	N	Not Recorded	N	N	Not Recorded	N	N	Not Recorded
Belgian Blocks		N	N	N	Not Recorded	N	N	Not Recorded	N	N	Not Recorded
Knee Key Test											
5% Female	Ease	Difficult	Easy	Easy	Difficult	Not Recorded	Not Possible	Not Possible	Difficult	Not Possible	Not Possible
	Driving Position	Abnormal	Abnormal	Abnormal	Abnormal	Not Recorded	N/A	N/A	Abnormal	N/A	N/A
	Knee Distance from Key (mm)	Gas - 139	Gas - 120 Brake - 95 Relaxed - 90	Gas - 120 Brake - 95 Relaxed - 90	Gas - 139	Not Recorded	Gas - 209	Gas - 209	Gas - 177	Gas - 234	Gas - 234
	Knee Distance from Fob (mm)	Gas - 63	Not Recorded	Not Recorded	Gas - 69	Not Recorded	Gas - 139	Gas - 146	Not Recorded	Gas - 165	Gas - 177
50% Male	Ease	Not Recorded	Easy	Easy	Not Recorded	Not Recorded	Not Possible	Not Recorded	Medium	Medium	Not Recorded
	Driving Position	Not Recorded	Abnormal	Abnormal	Not Recorded	Not Recorded	N/A	Not Recorded	Abnormal	Abnormal	Not Recorded
	Knee Distance from Key (mm)	Not Recorded	Gas - 165 Brake - 170 Relaxed - 190	Gas - 162 Brake - 165 Relaxed - 170	Not Recorded	Not Recorded	Gas - 230 Brake - 195 Relaxed - 212	Not Recorded	Gas - 135	Gas - 205	Not Recorded
	Knee Distance from Fob (mm)	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Gas - 175 Brake - 145 Relaxed - 165	Not Recorded	Not Recorded	Gas - 150	Not Recorded
95% Male	Ease	Easy	Easy	Easy	Not Recorded	Not Recorded	Difficult	Not Recorded	Medium	Not Possible	Not Recorded
	Driving Position	Abnormal	Abnormal	Abnormal	Not Recorded	Not Recorded	Abnormal	Not Recorded	Abnormal	N/A	Not Recorded
	Knee Distance from Key (mm)	Gas - 48	Gas - 40 Brake - 40 Relaxed - 70	Gas - 15 Brake - 20 Relaxed - 65	Not Recorded	Not Recorded	Gas - 100	Not Recorded	Gas - 95	Gas - 142	Not Recorded
	Knee Distance from Fob (mm)	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Gas - 55	Not Recorded	Not Recorded	Gas - 105	Not Recorded
Hang Tag Test											
Condition Possible? (Yes/No)		No	Not Recorded	No	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
Comments		Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded

Test Vehicle Information																			
Vehicle Workbook		BG						BH		BI		BJ		BK		BL		BM	
Platform		Sigma I						K-Car		Sigma I		S/T Truck		C/K Truck		S/T Truck		Delta I (A-Car)	
Program		GMX320						GMX272		GMT265		GMT355		GMT800		GMT360		GMX002	
Model Year		2007						2007		2007		2007		2007		2007		2007	
Make		Cadillac						Cadillac		Cadillac		GMC		Chevrolet		Chevrolet		Saturn	
Model		CTS						DTS		SRX		Canyon		Silverado 2500HD		Trailblazer		Ion	
VIN		1G6DP577070147512						1G6KD57Y97U208499		1GYE637X70179963		1GTC5149878230144		1GCHK23D07F193362		1GNDT135972189782		1G8AK55B47Z137156	
Mileage		147497						86755		125642		121517		66371		164772		128576	
Keyed Ignition System Information																			
Ignition Switch Part Number		Not Recorded						Incorrectly Recorded		15261531		Incorrectly Recorded		Incorrectly Recorded		Incorrectly Recorded		10392423	
Ignition Switch Torque (Ncm)		Not Recorded				Not Recorded		11.1		11.1		29.5		Not Recorded		Not Recorded		17.1	
System Torque (Ncm)		15.5				15.5		16.8		16.8		32.2		13.6		25.5		21.0	
Pull-down Force (N)		25.4				Not Recorded		>49		Not Recorded		>49		>49		>49		39.6	
Steering Column Rake Angle (deg)		37				37		35		35		37		32		32		36	
Key Angle (deg)	OFF	Not Recorded				Not Recorded		Not Recorded		Not Recorded		-12		-62		-20		-10	
	ACC	Not Recorded				Not Recorded		Not Recorded		Not Recorded		31		-25		20		30	
	RUN	56				56		60		60		56		0		50		56	
	CRANK	Not Recorded				Not Recorded		Not Recorded		Not Recorded		88		Not Recorded		77		90	
Shifter Position (column/floor)		Floor				Floor		Column		Column		Floor		Column		Column		Floor	
Key Position (column/dash/floor)		Column				Column		Column		Column		Column		Column		Column		Column	
Inertial Test																			
Key Type		Overmold 1		Overmold 1				Overmold 1		Overmold 1		Overmold 1		Overmold 1		Overmold 1		Overmold 1	
Insert Type		None		None				One-Piece		None		One-Piece		None		None		None	
Insert Hole Size (mm)		N/A		N/A				4x4		N/A		4x4		N/A		N/A		N/A	
Key Ring Inside Diameter (mm)		25		25				13		25		13		25		25		25	
Number of Key Rings		1		1				2		1		2		1		1		1	
Special Configuration Notes		Solid Mass Weight		N/A				N/A		N/A		N/A		N/A		N/A		N/A	
Weight (lb)		0.70		0.70	0.63	0.55	0.40	0.30	0.70	0.70	0.63	0.55	0.40	0.70	0.70	0.63	0.55	0.40	0.30
Cubicle @ 10 mph		Y		N	N/A	N/A	N/A	N/A	N	N	N/A	N/A	N/A	N	N	N/A	N/A	N/A	N/A
R&H (excluding Chatter & Angled RR)		Not Recorded		Y	N	N/A	N/A	N/A	N	N	N/A	N/A	N/A	N	N	N/A	N/A	N/A	N/A
R&H Chatter (Hz MPH/3) @ 55 to 45 mph		Not Recorded		Y	N	N/A	N/A	N/A	N	N	N/A	N/A	N/A	N	N	N/A	N/A	N/A	N/A
R&H Angled RR crossing @ 70+ mph		Not Recorded		Y	N	N/A	N/A	N/A	N	N	N/A	N/A	N/A	N	N	N/A	N/A	N/A	N/A
Pothole #1 @25 mph		Not Recorded		Y	Y	Y	N	N/A	N	N	N/A	N/A	N/A	N	N	N/A	N/A	N/A	N/A
Pothole #2 @ 25 mph		Not Recorded		Y	Y	Y	Y	N	N	Y	Y	Y	N	N	N	N/A	N/A	N/A	N/A
Panic stop @ 10 mph		Not Recorded		N	N/A	N/A	N/A	N/A	N	N	N/A	N/A	N/A	N	N	N/A	N/A	N/A	N/A
Belgian Blocks		Not Recorded		N	N/A	N/A	N/A	N/A	N	N	N/A	N/A	N/A	N	N	N/A	N/A	N/A	N/A
Knee Key Test																			
5% Female	Ease	Not Recorded		Not Recorded				Not Recorded		Not Possible		Not Possible		Not Possible		Difficult		Not Possible	
	Driving Position	Not Recorded		Not Recorded				Not Recorded		N/A		N/A		N/A		Abnormal		N/A	
	Knee Distance from Key (mm)	Not Recorded		Not Recorded				Not Recorded		Gas - 200		Gas - 200		Gas - 133		Gas - 139		Gas - 196	
	Knee Distance from Fob (mm)	Not Recorded		Not Recorded				Not Recorded		Gas - 135		Gas - 135		Not Recorded		Not Recorded		Gas - 133	
50% Male	Ease	Not Recorded		Not Recorded				Not Recorded		Not Possible		Not Possible		Medium		Easy		Gas - 133	
	Driving Position	Not Recorded		Not Recorded				Not Recorded		N/A		N/A		Abnormal		Normal		Abnormal	
	Knee Distance from Key (mm)	Not Recorded		Not Recorded				Not Recorded		Gas - 220		Gas - 215		Gas - 130		Gas - 80		Gas - 185	
	Knee Distance from Fob (mm)	Not Recorded		Not Recorded				Not Recorded		Gas - 150		Gas - 150		Not Recorded		Not Recorded		Gas - 115	
95% Male	Ease	Not Recorded		Not Recorded				Not Recorded		Not Possible		Not Possible		Not Recorded		Easy		Difficult	
	Driving Position	Not Recorded		Not Recorded				Not Recorded		N/A		Gas - 150		Not Recorded		Normal		Abnormal	
	Knee Distance from Key (mm)	Not Recorded		Not Recorded				Not Recorded		Gas - 150		Gas - 70		Gas - 77		Gas - 30		Gas - 130	
	Knee Distance from Fob (mm)	Not Recorded		Not Recorded				Not Recorded		Gas - 80		Not Recorded		Not Recorded		Not Recorded		Not Recorded	
Hang Tag Test																			
Condition Possible? (Yes/No)		Not Recorded		Not Recorded				Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded	
Comments		Not Recorded		Not Recorded				Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded	

Test Vehicle Information														
Vehicle Workbook	BN	BO	BP	BQ	BR	BS	BT	BU						
Platform	Theta	S/T Truck	W-Car	Delta I (A-Car)	Sigma II	Delta I (A-Car)	Delta I (A-Car)	N-Car						
Program	GMT315	GMT360	GMX367	GM2700	GMX322	GMX001	GMX001	GMX130						
Model Year	2007	2008	2008	2008	2009	2009	2009	1999						
Make	Saturn	GMC	Pontiac	Saturn	Cadillac	Chevrolet	Chevrolet	Pontiac						
Model	Vue	Envoy	Grand Prix	Astra	CTS	Cobalt	Cobalt	Grand Am						
VIN	5GZCZ534X7S869832	1GKDT135482139726	2GZWP552881190468	W08AT271085000108	1G6DF577090105234	1G1AT58H797256927	1G1AK58H0972726343	1G2NE52T0XM916194						
Mileage	128683	193697	63394	Not Recorded	128366	77594	71840	104968						
Keyed Ignition System Information														
Ignition Switch Part Number	Not Recorded	Incorrectly Recorded	10310896		Not Recorded	92184907				15886190	15886190	22599340		
Ignition Switch Torque (Ncm)	Not Recorded	Not Recorded	Not Recorded	16.3	16.3	Not Recorded	19.6	19.6	19.6	19.6	16.2	14.7	9.7	9.7
System Torque (Ncm)	20.1	21.2	21.2	18.1	18.1	29.4	23.1	23.1	21.4	21.6	19.0	16.1	16.9	16.9
Pull-down Force (N)	>49	46.1	Not Recorded	>49	Not Recorded	>49	>49	Not Recorded	Not Recorded	Not Recorded	25.7	26.3	>49	Not Recorded
Steering Column Rake Angle (deg)	20	37	37	N/A	N/A	23	23	23	23	23	21	Not Recorded	N/A	N/A
Key Angle (deg)	OFF	-35	-11	-11	-4	-4	-60	-40	-40	-40	-40	-13	-10	1
	ACC	30	31	31	24	24	-12	8	8	8	8	33	36	32
	RUN	56	57	57	52	52	30	31	31	31	31	59	62	59
	CRANK	Not Recorded	93	93	90	90	70	63	63	63	63	102	100	93
Shifter Position (column/floor)	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor
Key Position (column/dash/floor)	Column	Column	Column	Dash	Dash	Column	Column	Column	Column	Column	Column	Column	Dash	Dash
Inertial Test														
Key Type	Overmold 1	Overmold 1	Overmold 1	Overmold 1	Overmold 1	Flip Key	Overmold 1	Overmold 1	Overmold 1 - New Cut	Overmold 1 - New Cut	Overmold 1	Overmold 1	Overmold 1	Overmold 1
Insert Type	None	None	One-Piece	None	One-Piece	None	None	One-Piece	Clamshell	Two-Piece	None	None	None	One-Piece
Insert Hole Size (mm)	N/A	N/A	4x4	N/A	4x4	N/A	N/A	4x4	4x6	4x6	N/A	N/A	N/A	4x4
Key Ring Inside Diameter (mm)	25	25	13	25	13	25	25	13	13	13	25	25	25	13
Number of Key Rings	1	1	2	1	2	1	1	2	2	2	1	1	1	2
Special Configuration Notes	N/A	N/A	Inertial Test Not Performed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inertial Test Not Performed
Weight (lb)	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Cubiclete @ 10 mph	N	N	Not Recorded	N	Not Recorded	N	N	N/A	N	N	N	N	N	Not Recorded
R&H (excluding Chatter & Angled RR)	N	N	Not Recorded	N	Not Recorded	N	N	N/A	N	N	N	N	N	Not Recorded
R&H Chatter (Hz MPH/3) @ 55 to 45 mph	N	N	Not Recorded	N	Not Recorded	N	N	N/A	N	N	N	N	N	Not Recorded
R&H Angled RR crossing @ 70+ mph	N	N	Not Recorded	N	Not Recorded	N	N	N/A	N	N	N	N	N	Not Recorded
Pothole #1 @25 mph	N	N	Not Recorded	N	Not Recorded	N	N	N/A	N	N	N	N	N	Not Recorded
Pothole #2 @ 25 mph	N	N	Not Recorded	N	Not Recorded	N	N	N/A	N	N	N	N	N	Not Recorded
Panic stop @ 10 mph	N	N	Not Recorded	N	Not Recorded	N	N	N/A	N	N	N	N	N	Not Recorded
Belgian Blocks	N	N	Not Recorded	N	Not Recorded	N	N	N/A	N	N	N	N	N	Not Recorded
Knee Key Test														
5% Female	Ease	Medium	Not Possible	Not Possible	Difficult	Difficult	Easy	Medium	Medium	Medium	Not Recorded	Not Recorded	Not Recorded	Difficult
	Driving Position	Abnormal	N/A	N/A	Abnormal	Abnormal	Abnormal	Normal	Normal	Abnormal	Not Recorded	Not Recorded	Not Recorded	Abnormal
	Knee Distance from Key (mm)	Gas - 115 Brake - 95 Relaxed - 115	Gas - 196	Gas - 196	Not Recorded	Gas - 152	Gas - 175 Brake - 120 Relaxed - 110	Gas - 101	Gas - 101	Gas - 110 Brake - 90 Relaxed - 65	Not Recorded	Not Recorded	Not Recorded	Gas - 95
	Knee Distance from Fob (mm)	Not Recorded	Gas - 152	Gas - 165	Not Recorded	Gas - 114	Not Recorded	Gas - 12	Gas - 38	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Gas - 25
50% Male	Ease	Easy	Easy	Easy	Easy	Easy	Easy	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Easy
	Driving Position	Abnormal	Abnormal	Abnormal	Abnormal	Abnormal	Abnormal	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Abnormal
	Knee Distance from Key (mm)	Gas - 175 Brake - 170 Relaxed - 190	Gas - 160	Gas - 160	Gas - 205	Gas - 205	Gas - 185 Brake - 175 Relaxed - 140	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Gas - 115
	Knee Distance from Fob (mm)	Not Recorded	Gas - 110	Gas - 120	Gas - 150	Gas - 155	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Gas - 60
95% Male	Ease	Medium	Easy	Not Recorded	Easy	Not Recorded	Easy	Not Recorded	Not Recorded	Not Possible	Not Recorded	Not Recorded	Not Recorded	Easy
	Driving Position	Abnormal	Abnormal	Not Recorded	Abnormal	Not Recorded	Abnormal	Not Recorded	Not Recorded	N/A	Not Recorded	Not Recorded	Not Recorded	Normal
	Knee Distance from Key (mm)	Gas - 56 Brake - 43 Relaxed - 52	Gas - 93	Not Recorded	Gas - 60	Not Recorded	Gas - 70 Brake - 54 Relaxed - 32	Not Recorded	Not Recorded	Gas - 65 Brake - 45 Relaxed - 80	Not Recorded	Not Recorded	Not Recorded	Gas - 50
	Knee Distance from Fob (mm)	Not Recorded	Gas - 43	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
Hang Tag Test														
Condition Possible? (Yes/No)	No	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Yes	Not Recorded	Not Recorded	Yes	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
Comments	Tag can bind, but engineer wasn't successful in actually turning ignition off because tag bends (tag did not overcome ignition torque).	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Key very close to steering wheel (concerned about hand interference with gloves). 50 mm from key head to steering wheel.	Not Recorded	Not Recorded	Possible, but not easy	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded

Test Vehicle Information																		
Vehicle Workbook		BV			BW			BX			BY		BZ		CA			
Platform		C/K Truck			W-Car			C/K Truck			C/K Truck		C/K Truck					
Program		GMT900			GMX211			GMT900			GMT900		GMT820		GMT820			
Model Year		2013			2010			2012			2012		2003		2005			
Make		Cadillac			Chevrolet			Chevrolet			Chevrolet		Hummer		Hummer			
Model		Escalade			Impala			Silverado 2500HD			Silverado 3500HD		H2		H2			
VIN		1GYS48EF9DR292395			2G1WA5EK7A1128846			1GC2KVC66CZ0006EX			1GC3CZCGXCFO005EX		5GRGN23U43H123346		5GRGN22U35H0012EX			
Mileage		985			109023			5096			5419		1807		23511			
Keyed Ignition System Information																		
Ignition Switch Part Number		25733005			Not Recorded			Incorrectly Recorded			25733005		Incorrectly Recorded		Incorrectly Recorded			
Ignition Switch Torque (Ncm)		Not Recorded	Not Recorded	10.8			10.8	10.8	Not Recorded			Not Recorded	Not Recorded		Not Recorded	Not Recorded		
System Torque (Ncm)		23.1	23.1	21.9			21.9	21.9	20.4			17.3	22.0		28.0	28.0		
Pull-down Force (N)		>49	Not Recorded	>49			Not Recorded	Not Recorded	47.4			36.7	>49		>49	Not Recorded		
Steering Column Rake Angle (deg)		31	31	35.0			35.0	35.0	32			32	32		32	32		
Key Angle (deg)	OFF	-19	-19	Not Recorded			Not Recorded	Not Recorded	-18			-16	-20		-22	-22		
	ACC	21	21	Not Recorded			Not Recorded	Not Recorded	25			25	28		28	28		
	RUN	53	53	49.0			49.0	49.0	51			53	50		50	50		
	CRANK	87	87	Not Recorded			Not Recorded	Not Recorded	90			94	80		78	78		
Shifter Position (column/floor)		Column	Column	Floor			Floor	Floor	Column			Column	Floor		Floor	Floor		
Key Position (column/dash/floor)		Column	Column	Column			Column	Column	Column			Column	Column		Column	Column		
Inertial Test																		
Key Type		Overmold 1	Overmold 1	Overmold 1			Overmold 1	Overmold 1	Overmold 1	Overmold 1			Overmold 1	Overmold 1	Overmold 1	Overmold 1		
Insert Type		None	One-Piece	None			None	One-Piece	None	None			None	One-Piece	None	One-Piece		
Insert Hole Size (mm)		N/A	4x4	N/A			N/A	4x4	4x6	N/A			N/A	4x4	N/A	4x4		
Key Ring Inside Diameter (mm)		25	13	25			13	13	13	25			25	13	25	13		
Number of Key Rings		1	2	1			2	2	2	1			1	2	1	2		
Special Configuration Notes		N/A	Inertial Test Not Performed	N/A			Solid Mass Weight	N/A	N/A	N/A			N/A	N/A	Inertial Test Not Performed	N/A	Inertial Test Not Performed	
Weight (lb)		0.70	0.70	0.70	0.63	0.55	0.40	0.30	0.70	0.70	0.70	0.70	0.63	0.70	0.70	0.70		
Cubicle @ 10 mph		N	Not Recorded	N	N/A	N/A	N/A	N/A	N	N	N/A	N	N/A	N	Not Recorded	N	Not Recorded	
R&H (excluding Chatter & Angled RR)		N	Not Recorded	N	N/A	N/A	N/A	N/A	N	N	N/A	N	N/A	N	Not Recorded	N	Not Recorded	
R&H Chatter (Hz MPH/3) @ 55 to 45 mph		N	Not Recorded	N	N/A	N/A	N/A	N/A	N	N	N/A	N	N/A	N	Not Recorded	N	Not Recorded	
R&H Angled RR crossing @ 70+ mph		N	Not Recorded	N	N/A	N/A	N/A	N/A	N	N	N/A	N	N/A	N	Not Recorded	N	Not Recorded	
Pothole #1 @25 mph		N	Not Recorded	N	N/A	N/A	N/A	N/A	N	N	N/A	N	N/A	N	Not Recorded	N	Not Recorded	
Pothole #2 @ 25 mph		N	Not Recorded	N	N/A	N/A	N/A	N/A	N	N	N/A	N	N/A	N	Not Recorded	N	Not Recorded	
Panic stop @ 10 mph		N	Not Recorded	N	N/A	N/A	N/A	N/A	N	N	N/A	N	N/A	N	Not Recorded	N	Not Recorded	
Belgian Blocks		N	Not Recorded	N	N/A	N/A	N/A	N/A	N	N	N/A	N	N/A	N	Not Recorded	N	Not Recorded	
Knee Key Test																		
5% Female	Ease	Not Possible	Not Possible	Difficult			Not Recorded	Not Recorded	Difficult	Not Possible	Not Recorded			Not Possible	Not Possible	Difficult	Difficult	
	Driving Position	N/A	N/A	Abnormal			Not Recorded	Not Recorded	Abnormal	Not Possible	Not Recorded			N/A	N/A	Abnormal	Abnormal	
	Knee Distance from Key (mm)	Gas - 209	Gas - 209	Gas - 225			Not Recorded	Not Recorded	Gas - 190	Not Possible	Not Recorded			Gas - 228	Gas - 228	Gas - 228	Gas - 266	Gas - 266
	Knee Distance from Fob (mm)	Gas - 120	Gas - 139	Gas - 140			Not Recorded	Not Recorded	Gas - 125	Not Possible	Not Recorded			Gas - 158	Gas - 146	Gas - 165	Gas - 184	
50% Male	Ease	Not Possible	Not Possible	Not Possible			Not Recorded	Not Recorded	Not Possible	Not Possible	Not Recorded			Medium	Not Recorded	Medium	Not Recorded	
	Driving Position	N/A	N/A	N/A			Not Recorded	Not Recorded	N/A	Not Possible	Not Recorded			Abnormal	Not Recorded	Not Recorded	Abnormal	Not Recorded
	Knee Distance from Key (mm)	Gas - 155	Gas - 165	Gas - 205			Not Recorded	Not Recorded	Gas - 205	Not Possible	Not Recorded			Gas - 190	Not Recorded	Not Recorded	Gas - 220	Not Recorded
	Knee Distance from Fob (mm)	Gas - 140	Gas - 140	Gas - 135			Not Recorded	Not Recorded	Gas - 142	Not Possible	Not Recorded			Not Recorded	Not Recorded	Not Recorded	Gas - 150	Not Recorded
95% Male	Ease	Not Possible	Not Recorded	Not Possible			Easy	Not Recorded	Not Possible	Not Possible	Difficult			Difficult	Not Possible	Not Recorded	Not Possible	Not Recorded
	Driving Position	N/A	Not Recorded	N/A			Abnormal	Not Recorded	N/A	Not Possible	Abnormal			Abnormal	N/A	Not Recorded	N/A	Not Recorded
	Knee Distance from Key (mm)	Gas - 105	Not Recorded	Gas - 150 Brake - 140 Relaxed - 210			Gas - 40	Not Recorded	Gas - 155	Not Possible	Gas - 105			Gas - 108	Gas - 115	Not Recorded	Gas - 102	Not Recorded
	Knee Distance from Fob (mm)	Not Recorded	Not Recorded	Gas - 75 Brake - 85 Relaxed - 130			Not Recorded	Not Recorded	Gas - 90	Not Possible	Not Recorded			Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
Hang Tag Test																		
Condition Possible? (Yes/No)		Not Recorded	Not Recorded	Not Recorded			Not Recorded	Not Recorded	Not Possible	Not Recorded			Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	
Comments		Not Recorded	Not Recorded	Not Recorded			Not Recorded	Not Recorded	Not Possible	Not Recorded			Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	

Test Vehicle Information																
Vehicle Workbook		CB	CC				CD		CE		CF					
Platform		N Truck	W-Car				H-Car		Kappa (M-Car)		W-Car					
Program		GMT345	GMX365				GMX222		GMX020		GMX211					
Model Year		2008	2006				2007		2009		2007					
Make		Hummer	Buick				Buick		Pontiac		Chevrolet					
Model		H3	LaCrosse				Lucerne		Solstice		Impala					
VIN		5GTEN13L088100107	2G4WD582961123483				1G4HD57277U126320		1G2MB25B29Y0009EX		2G1W158KX79363872					
Mileage		6691	85704				90051		6049		107462					
Keyed Ignition System Information																
Ignition Switch Part Number		Incorrectly Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	15886190		Not Recorded				Not Recorded	Not Recorded	
Ignition Switch Torque (Ncm)		11.2	12.6	12.6	12.6	13.0	13.0	16.3		12.4				12.4	12.4	
System Torque (Ncm)		14.1	17.0	17.0	17.0	17.8	17.8	18.6		18.0				18.0	18.0	
Pull-down Force (N)		>49	28.2	28.2	>49	45.8	Not Recorded		43.4		>49				Not Recorded	Not Recorded
Steering Column Rake Angle (deg)		34	30	30	30	30	30	Not Recorded		35				35	35	
Key Angle (deg)	OFF	-59	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	-14		Not Recorded				Not Recorded	Not Recorded	
	ACC	-25	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	45		Not Recorded				Not Recorded	Not Recorded	
	RUN	7	54	54	54	57	57	65		64				64	64	
	CRANK	48	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	99		Not Recorded				Not Recorded	Not Recorded	
Shifter Position (column/floor)		Floor	Floor	Floor	Floor	Floor	Floor	Floor		Floor				Floor	Floor	
Key Position (column/dash/floor)		Column	Column	Column	Column	Column	Column	Column		Column				Column	Column	
Inertial Test																
Key Type		Overmold 1	Overmold 1	Overmold 1	Overmold 1	Overmold 1	Overmold 1	Overmold 1	Overmold 1	Overmold 1	Overmold 1		Overmold 1	Overmold 1		
Insert Type		None	None	None	One-Piece	None	One-Piece	None	None	None	None		None	One-Piece		
Insert Hole Size (mm)		N/A	N/A	N/A	4x4	N/A	4x4	N/A	N/A	N/A	N/A		N/A	4x4		
Key Ring Inside Diameter (mm)		25	13	25	13	25	13	25	25	25	25		25	13		
Number of Key Rings		1	2	1	2	1	2	1	1	1	1		1	2		
Special Configuration Notes		N/A	Solid Mass Weight	N/A	N/A	N/A	N/A	N/A	N/A	Solid Mass Weight	N/A		New Front Suspension Struts			
Weight (lb)		0.70	0.70	0.70	0.63	0.55	0.40	0.30	0.70	0.70	0.70	0.63	0.55	0.40		
Cubicle @ 10 mph		N	N	N	N/A	N/A	N/A	N	N	N	Y	N	N/A	N/A		
R&H (excluding Chatter & Angled RR)		N	N	Y	Y	N	N/A	N	N	N/A	Not Recorded	N	N/A	N/A		
R&H Chatter (Hz MPH/3) @ 55 to 45 mph		N	N	N	N/A	N/A	N/A	N	N	N	Not Recorded	N	N/A	N/A		
R&H Angled RR crossing @ 70+ mph		N	N	Y	Y	N	N/A	N	N	N/A	Not Recorded	N	N/A	N/A		
Pothole #1 @ 25 mph		N	N	Y	Y	N	N/A	N	N	N	Not Recorded	Y	Y	Y		
Pothole #2 @ 25 mph		N	N	Y	Y	Y	Y	N	N	N	Not Recorded	Y	Y	Y		
Panic stop @ 10 mph		N	N	N	N/A	N/A	N/A	N	N	N	Not Recorded	N	N/A	N/A		
Belgian Blocks		N	Y	N	N/A	N/A	N/A	N	N	N/A	Not Recorded	N	N/A	N/A		
Knee Key Test																
5% Female	Ease	Easy	Not Recorded	Difficult	Difficult	Not Possible	Not Possible	Not Recorded	Not Recorded	Not Recorded	Difficult		Difficult	Not Recorded		
	Driving Position	Normal	Not Recorded	Abnormal	Abnormal	N/A	N/A	Not Recorded	Not Recorded	Not Recorded	Not Recorded		Not Recorded	Not Recorded		
	Knee Distance from Key (mm)	Gas - 107	Not Recorded	Gas - 200	Gas - 180	Gas - 210	Gas - 210	Not Recorded	Not Recorded	Not Recorded	Gas - 190		Gas - 180	Not Recorded		
	Knee Distance from Fob (mm)	Gas - 25	Not Recorded	Gas - 120	Gas - 115	Gas - 140	Gas - 145	Not Recorded	Not Recorded	Not Recorded	Gas - 105		Gas - 115	Not Recorded		
50% Male	Ease	Easy	Not Recorded	Not Possible	Not Possible	Not Possible	Difficult	Not Recorded	Not Recorded	Not Recorded	Not Possible		Not Possible	Not Recorded		
	Driving Position	Abnormal	Not Recorded	N/A	N/A	N/A	Abnormal	Not Recorded	Not Recorded	Not Recorded	N/A		N/A	Not Recorded		
	Knee Distance from Key (mm)	Gas - 175 Brake - 155 Relaxed - 230	Not Recorded	Gas - 170	Gas - 230	Gas - 215	Gas - 230 Brake - 215 Relaxed - 198	Not Recorded	Not Recorded	Not Recorded	Gas - 215		Gas - 215	Not Recorded		
	Knee Distance from Fob (mm)	Gas - 100 Brake - 85 Relaxed - 230	Not Recorded	Gas - 100	Gas - 167	Gas - 145	Gas - 150 Brake - 130 Relaxed - 130	Not Recorded	Not Recorded	Not Recorded	Gas - 140		Gas - 155	Not Recorded		
95% Male	Ease	Easy	Not Recorded	Not Possible	Not Possible	Not Possible	Not Possible	Not Recorded	Not Recorded	Not Recorded	Not Possible		Not Possible	Not Recorded		
	Driving Position	Normal	Not Recorded	N/A	N/A	N/A	N/A	Not Recorded	Not Recorded	Not Recorded	N/A		N/A	Not Recorded		
	Knee Distance from Key (mm)	Gas - 40	Not Recorded	Gas - 140	Gas - 145	Gas - 155	Gas - 142 Brake - 110 Relaxed - 160	Not Recorded	Not Recorded	Not Recorded	Gas - 150		Gas - 150 Brake - 135 Relaxed - 180	Not Recorded		
	Knee Distance from Fob (mm)	Fob - 0	Not Recorded	Gas - 85	Gas - 70	Gas - 80	Gas - 80 Brake - 60 Relaxed - 110	Not Recorded	Not Recorded	Not Recorded	Gas - 85		Gas - 90 Brake - 70 Relaxed - 110	Not Recorded		
Hang Tag Test																
Condition Possible? (Yes/No)		Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded		Not Recorded	Not Recorded		
Comments		Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded		Not Recorded	Not Recorded		

Test Vehicle Information														
Vehicle Workbook		CG	CH					CI		CJ	CK	CL	CM	CN
Platform		Epsilon I	W-Car					U-Van		U-Van	U-Van	H-Car	Delta I (A-Car)	Delta I (A-Car)
Program		GMX384	GMX211					GMT201		GMT201	GMT201	GMX310	GMX260	GMT001
Model Year		2009	2007					2005		2006	2006	2000	2008	2008
Make		Saturn	Chevrolet					Buick		Buick	Chevrolet	Pontiac	Pontiac	Chevrolet
Model		Aura	Impala					Terraza		Terraza	Uplander	Bonneville	G5	HRH
VIN		1G8ZX577X9F123148	2G1WT58K579381289					5GADX33125D284754		5GADV33LX6D234871	1GNDV33L26D120692	1G2HY54K1Y4227839	1G2AL18F587256443	3GNDA33P88S0115EX
Mileage		92023	87057					128061		143570	190000	168473	108772	12056
Keyed Ignition System Information														
Ignition Switch Part Number		Not Recorded	Not Recorded					Not Recorded		Not Recorded	Not Recorded	25668329	Not Recorded	23215459
Ignition Switch Torque (Ncm)		Not Recorded	Not Recorded					Not Recorded		12.9	Not Recorded	9.2	Not Recorded	18.3
System Torque (Ncm)		13.1	15.9					20.1		24.3	17.3	9.7	17.9	20.8
Pull-down Force (N)		Not Recorded	Not Recorded					Not Recorded		>49	Not Recorded	Not Recorded	Not Recorded	32.5
Steering Column Rake Angle (deg)		N/A	35.0					40		40	40	N/A	Not Recorded	30
Key Angle (deg)	OFF	Not Recorded	Not Recorded					Not Recorded		Not Recorded	Not Recorded	0	Not Recorded	-11
	ACC	Not Recorded	Not Recorded					Not Recorded		Not Recorded	Not Recorded	30	Not Recorded	40
	RUN	60	64.0					52		54	57	60	Not Recorded	72
	CRANK	Not Recorded	Not Recorded					Not Recorded		Not Recorded	Not Recorded	90	Not Recorded	105
Shifter Position (column/floor)		Floor	Floor					Column		Column	Column	Floor	Floor	Floor
Key Position (column/dash/floor)		Dash	Column					Column		Column	Column	Dash	Column	Column
Inertial Test														
Key Type		Overmold 1	Overmold 1	Overmold 1	Overmold 1	Overmold 1	Overmold 1 - Cut to Fit into Passkey Bat Wing Slot			Overmold 1	Passkey	Overmold 1	Overmold 1 - Hole	Overmold 1
Insert Type		None	None	None	One-Piece	None	None			None	None	None	None	None
Insert Hole Size (mm)		N/A	N/A	N/A	4x4	4x6	N/A			N/A	N/A	N/A	N/A	N/A
Key Ring Inside Diameter (mm)		25	25	25	13	13	25			25	25	25	25	25
Number of Key Rings		1	1	1	2	2	1			1	1	1	1	1
Special Configuration Notes		N/A	Solid Mass Weight	N/A	N/A	N/A	Solid Mass Weight			Solid Mass Weight	N/A	N/A	Inertial Test Not Performed (Recall Kit Installed in Vehicle)	N/A
Weight (lb)		0.70	0.70	0.70	0.63	0.55	0.40	0.30	0.70	0.70	0.70	0.70	0.70	0.70
Cubicle @ 10 mph		N	N	N	N/A	N/A	N/A	N/A	N	N	N	N	Not Recorded	N
R&H (excluding Chatter & Angled RR)		N	Y	N	N/A	N/A	N/A	N/A	N	N	N	N	Not Recorded	N
R&H Chatter (Hz MPH/3) @ 55 to 45 mph		N	Y	N	N/A	N/A	N/A	N/A	N	N	N	N	Not Recorded	N
R&H Angled RR crossing @ 70+ mph		N	Y	Y	N	N/A	N/A	N/A	N	N	N	N	Not Recorded	N
Pothole #1 @25 mph		N	Y	N	N/A	N/A	N/A	N/A	N	N	N	N	Not Recorded	N
Pothole #2 @ 25 mph		N	Y	Y	Y	Y	Y	N	N	N	N	N	Not Recorded	N
Panic stop @ 10 mph		N	N	N	N/A	N/A	N/A	N/A	N	N	N	N	Not Recorded	N
Belgian Blocks		N	N	N	N/A	N/A	N/A	N/A	N	N	N	N	Not Recorded	N
Knee Key Test														
5% Female	Ease	Not Recorded	Not Recorded	Difficult		Difficult	Not Recorded	Not Recorded		Not Possible	Not Recorded	Not Recorded	Not Recorded	Not Recorded
	Driving Position	Not Recorded	Not Recorded	Not Recorded		Abnormal	Not Recorded	Not Recorded		N/A	Not Recorded	Not Recorded	Not Recorded	Not Recorded
	Knee Distance from Key (mm)	Not Recorded	Not Recorded	Gas - 190		Gas - 180	Not Recorded	Not Recorded		Gas - 175	Not Recorded	Not Recorded	Not Recorded	Not Recorded
	Knee Distance from Fob (mm)	Not Recorded	Not Recorded	Gas - 105		Gas - 115	Not Recorded	Not Recorded		Gas - 90	Not Recorded	Not Recorded	Not Recorded	Not Recorded
50% Male	Ease	Not Recorded	Not Recorded	Not Possible		Not Possible	Not Recorded	Not Recorded		Abnormal	Not Recorded	Not Recorded	Not Recorded	Not Recorded
	Driving Position	Not Recorded	Not Recorded	N/A		N/A	Not Recorded	Not Recorded		Difficult	Not Recorded	Not Recorded	Not Recorded	Not Recorded
	Knee Distance from Key (mm)	Not Recorded	Not Recorded	Gas - 215		Gas - 215	Not Recorded	Not Recorded		Gas - 230 Brake - 215 Relaxed - 198	Not Recorded	Not Recorded	Not Recorded	Not Recorded
	Knee Distance from Fob (mm)	Not Recorded	Not Recorded	Gas - 140		Gas - 155	Not Recorded	Not Recorded		Gas - 150 Brake - 130 Relaxed - 130	Not Recorded	Not Recorded	Not Recorded	Not Recorded
95% Male	Ease	Not Recorded	Not Recorded	Not Possible		Not Possible	Not Recorded	Not Recorded		Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
	Driving Position	Not Recorded	Not Recorded	N/A		N/A	Not Recorded	Not Recorded		Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
	Knee Distance from Key (mm)	Not Recorded	Not Recorded	Gas - 150		Gas - 150	Not Recorded	Not Recorded		Gas - 142 Brake - 110 Relaxed - 160	Not Recorded	Not Recorded	Not Recorded	Not Recorded
	Knee Distance from Fob (mm)	Not Recorded	Not Recorded	Gas - 85		Gas - 90	Not Recorded	Not Recorded		Gas - 80 Brake - 60 Relaxed - 110	Not Recorded	Not Recorded	Not Recorded	Not Recorded
Hang Tag Test														
Condition Possible? (Yes/No)		Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded			Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
Comments		Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded			Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded

Test Vehicle Information													
Vehicle Workbook		CO	CP	CQ	CR	CS	CT	CU	CV			CW	
Platform		C/K Truck	Kappa (M-Car)	Kappa (M-Car)	F-Car	Y-Car	G-Van	S-Car	W-Car			K-Car	
Program		GMT900	GMX023	GMX020	CF4	C5	GMT610	GMX126	GMX170			GMX270	
Model Year		2007	2007	2008	2002	2004	2005	2005	1998			2002	
Make		Chevrolet	Saturn	Pontiac	Pontiac	Chevrolet	GMC	Pontiac	Oldsmobile			Cadillac	
Model		Silverado 1500LD	Sky	Solstice	Firebird TransAm	Corvette	Savana 2500HD	Vibe	Intrigue			Deville	
VIN		1GCEK19JX7E0015EX	1G8MB35B77Y118317	1G2MG35X88Y123678	2G2FV22G122162808	1G1YY22G145123194	1GTGG25U951210616	5Y2SL63825Z409415	1G3WS52K1WF373831			1G6KD54Y92U241029	
Mileage		Not Recorded	27481	45770	66025	90217	154637	83433	165541			59064	
Keyed Ignition System Information													
Ignition Switch Part Number		Incorrectly Recorded	Not Recorded	15886190	Not Recorded	10308321	12450251	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
Ignition Switch Torque (Ncm)		Not Recorded	Not Recorded	20.9	Not Recorded	11.3	Not Recorded	19.1	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
System Torque (Ncm)		22.8	16.9	23.2	52.0	11.5	27.5	25.4	12.3	11.5	13.1	25.5	28.1
Pull-down Force (N)		>49	Not Recorded	47.4	>49	37.8	Not Recorded	>49	Not Recorded	Not Recorded	Not Recorded	>49	Not Recorded
Steering Column Rake Angle (deg)		30	Not Recorded	Not Recorded	32	N/A	37	35	N/A	N/A	N/A	35	35
Key Angle (deg)	OFF	-18	Not Recorded	-21	-11	0	-10	-35	0	0	0	-18	-18
	ACC	25	Not Recorded	47	34	30	30	20	30	30	30	30	30
	RUN	50	Not Recorded	65	52	60	55	55	60	60	60	60	60
	CRANK	90	Not Recorded	99	94	90	90	90	90	90	90	90	90
Shifter Position (column/floor)		Column	Floor	Floor	Floor	Floor	Column	Floor	Floor	Floor	Floor	Column	Column
Key Position (column/dash/floor)		Column	Column	Column	Column	Dash	Column	Column	Dash	Dash	Dash	Column	Column
Inertial Test													
Key Type		Overmold 1	Overmold 1	Overmold 1	Passkey - 14 mm Slot	Overmold 1	Overmold 1	NUMMI Overmold	Overmold 1	Overmold 1	Overmold 1	Overmold 1	Overmold 1 - New Cut
Insert Type		None	None	None	None	None	None	None	None	Clamshell	Two-Piece	None	Clamshell
Insert Hole Size (mm)		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4x6	4x6	N/A	4x6
Key Ring Inside Diameter (mm)		25	25	25	25	25	25	25	25	13	13	25	13
Number of Key Rings		1	1	1	1	1	1	1	1	2	2	1	2
Special Configuration Notes		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Wings on lock cylinder were removed to allow clamshell to fit
Weight (lb)		0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.63	0.70	0.70	0.70
Cubicle @ 10 mph		N	N	N	N	N	N	N	N	N/A	N	N	N
R&H (excluding Chatter & Angled RR)		N	N	N	N	N	N	N	N	Y	N	N	N
R&H Chatter (Hz MPH/3) @ 55 to 45 mph		N	N	N	N	N	N	N	N	N/A	N	N	N
R&H Angled RR crossing @ 70+ mph		N	N	N	N	N	N	N	N	N/A	N	N	N
Pothole #1 @ 25 mph		N	N	N	N	N	N	N	N	N/A	N	N	N
Pothole #2 @ 25 mph		N	N	N	N	N	N	N	N	N/A	N	N	N
Panic stop @ 10 mph		N	N	N	N	N	N	N	N	N/A	N	N	N
Belgian Blocks		N	N	N	N	N	N	N	Y	N	N	N	N
Knee Key Test													
5% Female	Ease	Difficult	Not Recorded	Not Recorded	Not Recorded	Medium	Not Possible	Easy	Easy	Easy	Not Recorded	Not Possible	Not Recorded
	Driving Position	Abnormal	Not Recorded	Not Recorded	Not Recorded	Abnormal	N/A	Abnormal	Abnormal	Abnormal	Not Recorded	N/A	Not Recorded
	Knee Distance from Key (mm)	Gas - 228	Not Recorded	Not Recorded	Not Recorded	Gas - 155 Brake - 125 Relaxed - 80	Gas - 230 Brake - 165 Relaxed - 215	Gas - 90 Brake - 50 Relaxed - 80	Gas - 160 Brake - 135 Relaxed - 110	Gas - 155 Brake - 130 Relaxed - 105	Not Recorded	Gas - 220 Brake - 180 Relaxed - 215	Gas - 215 Brake - 175 Relaxed - 210
	Knee Distance from Fob (mm)	Gas - 127	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
50% Male	Ease	Difficult	Not Recorded	Not Recorded	Not Recorded	Medium	Not Possible	Medium	Easy	Easy	Not Recorded	Not Possible	Not Recorded
	Driving Position	Abnormal	Not Recorded	Not Recorded	Not Recorded	Abnormal	N/A	Abnormal	Abnormal	Abnormal	Not Recorded	N/A	Not Recorded
	Knee Distance from Key (mm)	Gas - 220	Not Recorded	Not Recorded	Not Recorded	Gas - 180 Brake - 185 Relaxed - 190	Gas - 250 Brake - 250 Relaxed - 240	Gas - 135 Brake - 132 Relaxed - 230	Gas - 175 Brake - 175 Relaxed - 185	Gas - 170 Brake - 165 Relaxed - 185	Not Recorded	Gas - 228 Brake - 220 Relaxed - 193	Gas - 228 Brake - 220 Relaxed - 193
	Knee Distance from Fob (mm)	Gas - 140	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
95% Male	Ease	Not Possible	Not Recorded	Not Recorded	Not Recorded	Not Possible	Not Possible	Not Possible	Easy	Easy	Not Recorded	Not Possible	Not Recorded
	Driving Position	N/A	Not Recorded	Not Recorded	Not Recorded	N/A	N/A	N/A	Abnormal	Abnormal	Not Recorded	N/A	Not Recorded
	Knee Distance from Key (mm)	Gas - 138	Not Recorded	Not Recorded	Not Recorded	Gas - 85 Brake - 70 Relaxed - 75	Gas - 140 Brake - 140 Relaxed - 155	Gas - 75 Brake - 60 Relaxed - 90	Gas - 80 Brake - 70 Relaxed - 70	Gas - 75 Brake - 55 Relaxed - 50	Not Recorded	Gas - 120 Brake - 134 Relaxed - 135	Gas - 115 Brake - 129 Relaxed - 129
	Knee Distance from Fob (mm)	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
Hang Tag Test													
Condition Possible? (Yes/No)		Not Recorded	Not Recorded	Not Recorded	Not Recorded	No	Yes	No	No	No	Not Recorded	No	Not Recorded
Comments		Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Hang tag possible below horizontal with back of steering wheel groove	Tag will touch and bind with steering wheel's cruise control stalk, but engineer couldn't get key to rotate out of run position.	130mm from key head to crevice for steering wheel button Normal position really far - 8-10 inches with seat forward	Not Recorded	Not Recorded	Not Recorded	Not Recorded

Test Vehicle Information															
Vehicle Workbook		CX			CY				CZ				DA		
Platform		N-Car			Sigma I				Epsilon I				W-Car		
Program		GMX130			GMT265				GMX380				GMX210		
Model Year		2003			2004				2004				2005		
Make		Oldsmobile			Cadillac				Chevrolet				Chevrolet		
Model		Alero			SRX				Malibu				Impala		
VIN		1G3NF52X3C109806			1GYDE637340115111				1G1ZT648X4F147343				2G1WH52K259291069		
Mileage		114234			124834				155015				84975		
Keyed Ignition System Information															
Ignition Switch Part Number		Not Recorded	Not Recorded	Not Recorded	Not Recorded		Not Recorded	Not Recorded	12450139			Not Recorded	Not Recorded	Not Recorded	
Ignition Switch Torque (Ncm)		Not Recorded	Not Recorded	Not Recorded	Not Recorded		Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	
System Torque (Ncm)		12.3	15.3	15.3	17.8		17.0	20.1	15.7	13.5	31.6	14.9	16.2	19.3	
Pull-down Force (N)		Not Recorded	Not Recorded	Not Recorded	23.3		Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	
Steering Column Rake Angle (deg)		N/A	N/A	N/A	35		35	35	N/A	N/A	N/A	N/A	N/A	N/A	
Key Angle (deg)	OFF	0	0	0	-7		-7	-7	-3	-3	-3	0	0	0	
	ACC	30	30	30	30		30	30	33	33	33	32	32	32	
	RUN	60	60	60	55		55	55	60	60	60	60	60	60	
	CRANK	98	98	98	86		86	86	93	93	93	90	90	90	
Shifter Position (column/floor)		Floor	Floor	Floor	Floor		Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	
Key Position (column/dash/floor)		Dash	Dash	Dash	Column		Column	Column	Dash	Dash	Dash	Dash	Dash	Dash	
Inertial Test															
Key Type		Overmold 1	Overmold 1 - New Cut	Overmold 1 - New Cut	Overmold 1		Overmold 1	Overmold 1 - New Cut	Overmold 1	Overmold 1	Overmold 1 - New Cut	Overmold 1	Overmold 1	Overmold 1 - New Cut	
Insert Type		None	Clamshell	Two-Piece	None		Clamshell	Two-Piece	None	Clamshell	Two-Piece	None	Clamshell	Two-Piece	
Insert Hole Size (mm)		N/A	4x6	4x6	N/A		4x6	4x6	N/A	4x6	4x6	N/A	4x6	4x6	
Key Ring Inside Diameter (mm)		25	13	13	25		13	13	25	13	13	25	13	13	
Number of Key Rings		1	2	2	1		2	2	1	2	2	1	2	2	
Special Configuration Notes		N/A	N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Weight (lb)		0.70	0.63	0.70	0.70	0.63	0.55	0.40	0.70	0.70	0.70	0.70	0.70	0.70	
Cubiclete @ 10 mph		N	N/A	N	N	N/A	N/A	N/A	N	N	N	N	N	N	
R&H (excluding Chatter & Angled RR)		N	N/A	N	N	N/A	N/A	N/A	N	N	N	N	N	N	
R&H Chatter (Hz MPH/3) @ 55 to 45 mph		N	N/A	N	N	N/A	N/A	N/A	N	N	N	N	N	N	
R&H Angled RR crossing @ 70+ mph		N	N/A	N	N	N/A	N/A	N/A	N	N	N	N	N	N	
Pothole #1 @25 mph		Y	N	N	Y	Y	N	N/A	N	N	N	N	N	N	
Pothole #2 @ 25 mph		Y	N	N	Y	Y	Y	N	N	N	N	N	N	N	
Panic stop @ 10 mph		N	N/A	N	N	N/A	N/A	N/A	N	N	N	N	N	N	
Belgian Blocks		N	N/A	N	N	N/A	N/A	N/A	N	N	N	N	N	N	
Knee Key Test															
5% Female	Ease	Medium	Medium	Not Recorded	Medium		Easy	Not Recorded	Difficult	Not Possible	Not Recorded	Medium	Easy	Not Recorded	
	Driving Position	Abnormal	Abnormal	Not Recorded	Abnormal		Abnormal	Not Recorded	Not Recorded	N/A	Not Recorded	Abnormal	Abnormal	Not Recorded	
	Knee Distance from Key (mm)	Gas - 140 Brake - 110 Relaxed - 90	Gas - 135 Brake - 105 Relaxed - 85	Not Recorded	Gas - 120 Brake - 105 Relaxed - 85		Gas - 115 Brake - 100 Relaxed - 80	Not Recorded	Gas - 155 Brake - 120 Relaxed - 140	Gas - 150 Brake - 115 Relaxed - 135	Not Recorded	Gas - 150 Brake - 110 Relaxed - 85	Gas - 155 Brake - 130 Relaxed - 90	Not Recorded	
	Knee Distance from Fob (mm)	Not Recorded	Not Recorded	Not Recorded	Not Recorded		Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	
50% Male	Ease	Easy	Easy	Not Recorded	Medium		Easy	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Easy	Easy	Not Recorded	
	Driving Position	Abnormal	Abnormal	Not Recorded	Abnormal		Abnormal	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Abnormal	Abnormal	Not Recorded	
	Knee Distance from Key (mm)	Gas - 195 Brake - 185 Relaxed - 190	Gas - 190 Brake - 180 Relaxed - 185	Not Recorded	Gas - 128 Brake - 120 Relaxed - 150		Gas - 124 Brake - 115 Relaxed - 140	Not Recorded	Gas - 230 Brake - 225 Relaxed - 270	Gas - 225 Brake - 220 Relaxed - 260	Not Recorded	Gas - 180 Brake - 180 Relaxed - 155	Gas - 174 Brake - 175 Relaxed - 150	Not Recorded	
	Knee Distance from Fob (mm)	Not Recorded	Not Recorded	Not Recorded	Not Recorded		Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	
95% Male	Ease	Easy	Not Recorded	Not Recorded	Difficult		Not Recorded	Not Recorded	Medium	Easy	Not Recorded	Easy	Easy	Not Recorded	
	Driving Position	Abnormal	Not Recorded	Not Recorded	Abnormal		Not Recorded	Not Recorded	Abnormal	Abnormal	Not Recorded	Abnormal	Abnormal	Not Recorded	
	Knee Distance from Key (mm)	Gas - 100 Brake - 97 Relaxed - 95	Not Recorded	Not Recorded	Gas - 65 Brake - 52 Relaxed - 65		Not Recorded	Not Recorded	Gas - 60 Brake - 55 Relaxed - 100	Gas - 50 Brake - 47 Relaxed - 90	Not Recorded	Gas - 90 Brake - 110 Relaxed - 80	Gas - 50 Brake - 40 Relaxed - 60	Not Recorded	
	Knee Distance from Fob (mm)	Not Recorded	Not Recorded	Not Recorded	Not Recorded		Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	
Hang Tag Test															
Condition Possible? (Yes/No)		No	No	Not Recorded	Yes		Yes	Not Recorded	No	No	Not Recorded	No	No	Not Recorded	
Comments		Standard leather tag does not contact steering wheel in the full range of column tilt positions. Not able to produce a hang tag condition.	Not Recorded	Not Recorded	Possible, but not easy		Possible, but not easy	Not Recorded	Not Recorded	Not Recorded	Not Recorded	175mm from steering wheel to key head	Not Recorded	Not Recorded	

Test Vehicle Information												
Vehicle Workbook	DB				DC				DD			
Platform	W-Car				W-Car				W-Car			
Program	GMX230				GMX365				GMX211			
Model Year	2005				2006				2006			
Make	Chevrolet				Buick				Chevrolet			
Model	Monte Carlo				LaCrosse				Impala			
VIN	2G1WX12K559382915				2G4WD582261144949				2G1WS581669337021			
Mileage	136860				63740				67901			
Keyed Ignition System Information												
Ignition Switch Part Number	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
Ignition Switch Torque (Ncm)	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
System Torque (Ncm)	15.4	14.4	16.2	17.5	17.5	16.6	17.8	23.7	21.8	20.3	Not Recorded	Not Recorded
Pull-down Force (N)	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
Steering Column Rake Angle (deg)	N/A	N/A	N/A	35	35	35	35	35	35	35	35	35
Key Angle (deg)	OFF	0	0	-15	-15	-15	-15	-5	-5	-5	-5	-5
	ACC	33	33	33	40	40	40	35	35	35	35	35
	RUN	62	62	62	60	60	60	60	60	60	60	60
	CRANK	92	92	92	90	90	90	87	87	87	87	87
Shifter Position (column/floor)	Floor	Floor	Floor	Column	Column	Column	Column	Floor	Floor	Floor	Floor	Floor
Key Position (column/dash/floor)	Dash	Dash	Dash	Column	Column	Column	Column	Column	Column	Column	Column	Column
Inertial Test												
Key Type	Overmold 1	Overmold 1	Overmold 1	Overmold 1	Overmold 1	Overmold 1 - New Cut	Overmold 1	Overmold 1	Overmold 1	Overmold 1	Overmold 1	Overmold 1
Insert Type	None	Clamshell	Two-Piece	None	None	Clamshell	Two-Piece	None	Clamshell	Two-Piece	Counterfeit Hole	Counterfeit Hole
Insert Hole Size (mm)	N/A	4x6	4x6	N/A	N/A	4x6	4x6	N/A	N/A	4x6	4x6	5
Key Ring Inside Diameter (mm)	25	13	13	25	25	13	13	25	13	13	13	13
Number of Key Rings	1	2	2	1	1	2	2	1	2	2	2	2
Special Configuration Notes	N/A	N/A	N/A	N/A	Pothole Re-Test	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Weight (lb)	0.70	0.63	0.70	0.70	0.70	0.63	0.55	0.40	0.70	0.63	0.55	0.40
Cubilete @ 10 mph	N	N/A	N	N	N	N/A	N/A	N/A	N/A	N	N	N
R&H (excluding Chatter & Angled RR)	N	N/A	N	N	N	N/A	N/A	N/A	N/A	N	N	N
R&H Chatter (Hz MPH/3) @ 55 to 45 mph	N	N/A	N	N	N	N/A	N/A	N/A	N/A	N/A	N	N
R&H Angled RR crossing @ 70+ mph	N	N/A	N	N	Y	Y	Y	N	N/A	N/A	N/A	N
Pothole #1 @25 mph	N	N/A	N	N	N	N/A	N/A	N/A	N/A	N	N	N
Pothole #2 @ 25 mph	N	N/A	N	N	N	N/A	N/A	N/A	N/A	N	N	N
Panic stop @ 10 mph	N	N/A	N	N	N	N/A	N/A	N/A	N/A	N/A	N	N
Belgian Blocks	Y & N	N	N	N	N	N/A	N/A	N/A	N/A	N	N	N
Knee Key Test												
5% Female	Ease	Difficult	Difficult	Not Recorded	Not Possible	Not Recorded	Not Possible	Not Recorded	Not Possible	Not Possible	Not Recorded	Not Recorded
	Driving Position	Abnormal	Abnormal	Not Recorded	N/A	Not Recorded	N/A	Not Recorded	N/A	N/A	Not Recorded	Not Recorded
	Knee Distance from Key (mm)	Gas - 175 Brake - 150 Relaxed - 105	Gas - 165 Brake - 140 Relaxed - 100	Not Recorded	Gas - 125 Brake - 110 Relaxed - 155	Not Recorded	Gas - 170 Brake - 105 Relaxed - 150	Not Recorded	Gas - 200 Brake - 155 Relaxed - 150	Gas - 195 Brake - 150 Relaxed - 145	Not Recorded	Not Recorded
	Knee Distance from Fob (mm)	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
50% Male	Ease	Medium	Medium	Medium	Not Possible	Not Recorded	Not Possible	Not Recorded	Not Possible	Not Possible	Not Recorded	Not Recorded
	Driving Position	Abnormal	Abnormal	Abnormal	N/A	Not Recorded	N/A	Not Recorded	N/A	N/A	Not Recorded	Not Recorded
	Knee Distance from Key (mm)	Gas - 200 Brake - 210 Relaxed - 205	Gas - 195 Brake - 205 Relaxed - 200	Gas - 200 Brake - 210 Relaxed - 205	Gas - 195 Brake - 195 Relaxed - 173	Not Recorded	Gas - 192 Brake - 190 Relaxed - 170	Gas - 195 Brake - 195 Relaxed - 173	Gas - 215 Brake - 200 Relaxed - 223	Gas - 212 Brake - 205 Relaxed - 215	Not Recorded	Not Recorded
	Knee Distance from Fob (mm)	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
95% Male	Ease	Easy	Easy	Not Recorded	Not Possible	Not Recorded	Not Possible	Not Recorded	Not Possible	Not Possible	Not Recorded	Not Recorded
	Driving Position	Abnormal	Abnormal	Not Recorded	N/A	Not Recorded	N/A	Not Recorded	N/A	N/A	Not Recorded	Not Recorded
	Knee Distance from Key (mm)	Gas - 60 Brake - 50 Relaxed - 65	Gas - 55 Brake - 40 Relaxed - 55	Not Recorded	Gas - 155 Brake - 135 Relaxed - 165	Not Recorded	Gas - 150 Brake - 130 Relaxed - 160	Not Recorded	Gas - 145 Brake - 130 Relaxed - 165	Gas - 140 Brake - 125 Relaxed - 160	Not Recorded	Not Recorded
	Knee Distance from Fob (mm)	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
Hang Tag Test												
Condition Possible? (Yes/No)	No	No	Not Recorded	Yes	Not Recorded	Yes	Not Recorded	Yes	Yes	Not Recorded	Not Recorded	Not Recorded
Comments	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded

Test Vehicle Information																
Vehicle Workbook	DE					DF					DG					
Platform	W-Car					W-Car					H-Car					
Program	GMX231					GMX365					GMX222					
Model Year	2006					2007					2007					
Make	Chevrolet					Buick					Buick					
Model	Monte Carlo					Allure					Lucerne					
VIN	2G1WL16C669230397					2G4WJ582371247596					1G4HP57287U116919					
Mileage	148686					144884					68153					
Keyed Ignition System Information																
Ignition Switch Part Number	Not Recorded					Not Recorded					Not Recorded					
Ignition Switch Torque (Ncm)	Not Recorded					Not Recorded					Not Recorded					
System Torque (Ncm)	22.4					22.9					20.6					
Pull-down Force (N)	Not Recorded					Not Recorded					Not Recorded					
Steering Column Rake Angle (deg)	30					35					30					
Key Angle (deg)	OFF	-12					-15					-10				
	ACC	40					40					30				
	RUN	60					60					60				
	CRANK	90					90					87				
Shifter Position (column/floor)	Floor					Floor					Floor					
Key Position (column/dash/floor)	Column					Column					Column					
Inertial Test																
Key Type	Overmold 1					Overmold 1					Overmold 1					
Insert Type	None					Clamshell					Clamshell					
Insert Hole Size (mm)	N/A					4x6					4x6					
Key Ring Inside Diameter (mm)	25					13					13					
Number of Key Rings	1					2					2					
Special Configuration Notes	N/A					N/A					N/A					
Weight (lb)	0.70	0.63	0.55	0.40	0.30	0.70	0.70	0.70	0.70	0.63	0.55	0.40	0.70	0.70		
Cubilete @ 10 mph	N	N/A	N/A	N/A	N/A	N	N	N	N	N/A	N/A	N/A	N	N		
R&H (excluding Chatter & Angled RR)	N	N/A	N/A	N/A	N/A	N	N	N	N	N/A	N/A	N/A	N	N		
R&H Chatter (Hz MPH/3) @ 55 to 45 mph	N	N/A	N/A	N/A	N/A	N	N	N	N	N/A	N/A	N/A	N	N		
R&H Angled RR crossing @ 70+ mph	N	N/A	N/A	N/A	N/A	N	N	N	N	N/A	N/A	N/A	N	N		
Pothole #1 @25 mph	N	N/A	N/A	N/A	N/A	N	N	N	N	N/A	N/A	N/A	N	N		
Pothole #2 @ 25 mph	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	N	N	N		
Panic stop @ 10 mph	N	N/A	N/A	N/A	N/A	N	N	N	N	N/A	N/A	N/A	N	N		
Belgian Blocks	N	N/A	N/A	N/A	N/A	N	N	N	N	N/A	N/A	N/A	N	N		
Knee Key Test																
5% Female	Ease	Not Possible					Difficult					Difficult				
	Driving Position	N/A					Abnormal					Abnormal				
	Knee Distance from Key (mm)	Gas - 215 Brake - 160 Relaxed - 165					Gas - 210 Brake - 155 Relaxed - 160					Gas - 200 Brake - 140 Relaxed - 155				
	Knee Distance from Fob (mm)	Not Recorded					Not Recorded					Not Recorded				
50% Male	Ease	Not Possible					Not Possible					Medium				
	Driving Position	N/A					N/A					Abnormal				
	Knee Distance from Key (mm)	Gas - 240 Brake - 215 Relaxed - 230					Gas - 235 Brake - 210 Relaxed - 225					Gas - 240 Brake - 215 Relaxed - 230				
	Knee Distance from Fob (mm)	Not Recorded					Not Recorded					Not Recorded				
95% Male	Ease	Not Possible					Not Possible					Medium				
	Driving Position	N/A					N/A					Abnormal				
	Knee Distance from Key (mm)	Gas - 135 Brake - 98 Relaxed - 60					Gas - 99 Brake - 88 Relaxed - 50					Gas - 100 Brake - 90 Relaxed - 100				
	Knee Distance from Fob (mm)	Not Recorded					Not Recorded					Not Recorded				
Hang Tag Test																
Condition Possible? (Yes/No)	Yes					Yes	Not Recorded	Not Recorded	Yes	Yes	Not Recorded	Yes	Yes	Not Recorded		
Comments	Buttons on steering wheel					Not Recorded	Not Recorded	Not Recorded	Possible, 65mm from key head to button crevice	Possible with just tag. However the use of two 13 mm ID rings mitigates the hang tag condition.	Not Recorded	Possible - Buttons on back of steering wheel. Minimum key to crevice distance 70mm	Using no rings (just tag ring slightly improve tag stability to catch). Using two 13 mm ID rings significantly reduces hang tag condition.	Not Recorded		

Test Vehicle Information													
Vehicle Workbook	DI	DJ	DK	DL	DM	DN	DO	DP	DQ	DR	DS	DT	
Platform	W-Car	S/T Truck	Gamma II	C/K Truck	G-Van	C/K Truck	G-Van	Lambda	Epsilon I	Epsilon II	Epsilon II	Epsilon I	
Program	GMX211	31XXN	G1UC	K2XX	GMT610	GMT1900	GMT610	GMT967	GMX384	GMX352	GMX351	GMX386	
Model Year	2014	2015	2013	2014	2012	2011	2014	2014	2009	2014	2014	2012	
Make	Chevrolet	Chevrolet/GMC	Chevrolet	GMC	Chevrolet	GMC	Chevrolet	Buick	Saturn	Chevrolet	Chevrolet	Chevrolet	
Model	Impala Police	Colorado/Canyon	Trax	Sierra 1500LD	Express	Sierra 1500LD	Express 3500HD	Enclave	Aura	Impala	Malibu	Malibu	
VIN	2G1WD5E38E1100009	1GC91NEA0FX2705EX	3GNCJKEB6D0026EX	3GTU2TEH3EG100043	1GCSGAF41C1100028	3GTP2WE30BG138067	1GCZGTF17E10026EX	5GAKVCD1EJ199042	1G8ZX57769F210254	2G1155S36E9108056	1G11C5SL0EU109387	1G1ZC5E05CF323247	
Mileage	1578	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	77506	Not Recorded	Not Recorded	13624
Keyed Ignition System Information													
Ignition Switch Part Number	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
Ignition Switch Torque (Ncm)	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
System Torque (Ncm)	17.2	Not Recorded	Not Recorded	Not Recorded	18.3	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
Pull-down Force (N)	24.2	> 49	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	>49	Not Recorded	Not Recorded	Not Recorded	Not Recorded
Steering Column Rake Angle (deg)	35	25.0	25.0	35	35	30	35	25	N/A	30	30	N/A	
Key Angle (deg)	OFF	-18	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
	ACC	35	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
	RUN	61	23	20	53	54	49	54	25	60	24	23	60
	CRANK	90	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
Shifter Position (column/floor)	Column	Floor	Floor	Column	Column	Column	Column	Floor	Floor	Floor	Floor	Floor	
Key Position (column/dash/floor)	Column	Column	Column	Column	Column	Column	Column	Column	Dash	Column	Column	Dash	
Inertial Test													
Key Type	Overmold 1	Overmold 1	Gen 2 Flip Key	Gen 1 Flip Key	Overmold 3	Overmold 1	Overmold 1	Overmold 3	Overmold 1	Overmold 1	Gen 1 Flip Key	Gen 1 Flip Key	Overmold 1
Insert Type	None	Two-Piece Insert	None	None	None	None	None	None	None	None	None	None	None
Insert Hole Size (mm)	N/A	4x6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Key Ring Inside Diameter (mm)	25	16	25	25	25	25	25	25	25	25	25	25	25
Number of Key Rings	1	2	1	1	1	1	1	1	1	1	1	1	1
Special Configuration Notes	N/A	N/A	Inertial Test Not Performed	Inertial Test Not Performed (Vehicle Only Used to Collect Ign Sw Acceleration Data)	Inertial Test Not Performed (Vehicle Only Used to Collect Ign Sw Acceleration Data)	Inertial Test Not Performed (Vehicle Only Used to Collect Ign Sw Acceleration Data)	Inertial Test Not Performed (Vehicle Only Used to Collect Ign Sw Acceleration Data)	Inertial Test Not Performed (Vehicle Only Used to Collect Ign Sw Acceleration Data)	Inertial Test Not Performed	Inertial Test Not Performed (Vehicle Only Used to Collect Ign Sw Acceleration Data)	Inertial Test Not Performed (Vehicle Only Used to Collect Ign Sw Acceleration Data)	Inertial Test Not Performed (Vehicle Only Used to Collect Ign Sw Acceleration Data)	Inertial Test Not Performed (Vehicle Only Used to Collect Ign Sw Acceleration Data)
Weight (lb)	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Cubicle @ 10 mph	N	N	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
R&H (excluding Chatter & Angled RR)	N	N	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
R&H Chatter (Hz MPH/3) @ 55 to 45 mph	N	N	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
R&H Angled RR crossing @ 70+ mph	N	N	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
Pothole #1 @ 25 mph	N	N	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
Pothole #2 @ 25 mph	N	N	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
Panic stop @ 10 mph	N	N	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
Belgian Blocks	N	N	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded
Knee Key Test													
5% Female	Ease	Not Recorded	Not Recorded	Medium	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Easy	Not Recorded	Not Recorded	Not Recorded
	Driving Position	Not Recorded	Not Recorded	Abnormal	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Abnormal	Not Recorded	Not Recorded	Not Recorded
	Knee Distance from Key (mm)	Not Recorded	Not Recorded	Gas - 127	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Gas - 140	Not Recorded	Not Recorded	Not Recorded
	Knee Distance from Fob (mm)	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Gas - 57	Not Recorded	Not Recorded	Not Recorded
50% Male	Ease	Not Recorded	Not Recorded	Easy	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Medium	Not Recorded	Not Recorded	Not Recorded
	Driving Position	Not Recorded	Not Recorded	Abnormal	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Abnormal	Not Recorded	Not Recorded	Not Recorded
	Knee Distance from Key (mm)	Not Recorded	Not Recorded	Gas - 159	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Gas - 178	Not Recorded	Not Recorded	Not Recorded
	Knee Distance from Fob (mm)	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Gas - 102	Not Recorded	Not Recorded	Not Recorded
95% Male	Ease	Not Recorded	Not Recorded	Easy	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Difficult	Not Recorded	Not Recorded	Not Recorded
	Driving Position	Not Recorded	Not Recorded	Normal	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Abnormal	Not Recorded	Not Recorded	Not Recorded
	Knee Distance from Key (mm)	Not Recorded	Not Recorded	Gas - 85	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Gas - 87	Not Recorded	Not Recorded	Not Recorded
	Knee Distance from Fob (mm)	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Gas - 0	Not Recorded	Not Recorded	Not Recorded
Hang Tag Test													
Condition Possible? (Yes/No)	Not Recorded	Yes	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	No	Not Recorded	Not Recorded	Not Recorded	Not Recorded
Comments	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded

Test Vehicle Information																		
Vehicle Workbook		DU				DV				DW			DX		DY		DZ	
Platform		S/T Truck				Zeta				D2			D2		G-Van		Epsilon II	
Program		31XXN				GMX521				D2XX			D2XX		GMT610		GMX352	
Model Year		2015				2014				2016			2016		2012		2014	
Make		Chevrolet/GMC				Chevrolet				Chevrolet			Chevrolet		Chevrolet		Chevrolet	
Model		Colorado/Canyon				Camaro				Cruze			Cruze		Express		Impala	
VIN		1GT9TVE34FX2519EX				2G1FF1E37E90061EX				W0L0B1V69FP003EX			W0L0B1V69FP018EX		1GCSGAFXXC10003EX		1G1125S35EU117732	
Mileage		Not Recorded				Not Recorded				Not Recorded			Not Recorded		Not Recorded		Not Recorded	
Keyed Ignition System Information																		
Ignition Switch Part Number		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		
Ignition Switch Torque (Ncm)		Not Recorded		Not Recorded		18.1		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		
System Torque (Ncm)		37.3		Not Recorded		20.6		Not Recorded		Not Recorded		18.7		Not Recorded		20.5		
Pull-down Force (N)		Not Recorded		>49		22.2		>49		>49		Not Recorded		Not Recorded		20.5		
Steering Column Rake Angle (deg)		26.0		21		21		21		21		26		26		26		
Key Angle (deg)	OFF	Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		
	ACC	Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		
	RUN	22		112		78		22		22		53		34		53		
	CRANK	Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		
Shifter Position (column/floor)		Floor		Floor		Floor		Floor		Floor		Floor		Floor		Floor		
Key Position (column/dash/floor)		Column		Column		Column		Column		Column		Column		Column		Column		
Inertial Test																		
Key Type		Overmold 2		Overmold 2		Overmold 2		Gen 1 Flip Key		Gen 1 Flip Key		Overmold 2		Overmold 2		Overmold 2		
Insert Type		None		None		None		None		One-Piece		One-Piece Half Removed		None		None		
Insert Hole Size (mm)		N/A		4x4		4x6		N/A		N/A		4x4		N/A		4x4		
Key Ring Inside Diameter (mm)		13		13		13		Not Recorded		25		13		13		25		
Number of Key Rings		2		2		2		Not Recorded		1		2		2		2		
Special Configuration Notes		N/A		N/A		N/A		Inertial Test Not Performed		Rotated Lock Cylinder		N/A		N/A		N/A		
Weight (lb)		0.70		0.70		0.70		Not Recorded		0.70		0.70		0.63		0.70		
Cubilete @ 10 mph		N		N		N		Not Recorded		N		N		N		N		
R&H (excluding Chatter & Angled RR)		N		N		N		Not Recorded		N		N		N		N		
R&H Chatter (Hz MPH/3) @ 55 to 45 mph		N		N		N		Not Recorded		N		N		N		N		
R&H Angled RR crossing @ 70+ mph		N		N		N		Not Recorded		N		N		N		N		
Pothole #1 @ 25 mph		N		N		N		Not Recorded		N		N		Y & N		Y & N		
Pothole #2 @ 25 mph		N		N		N		Not Recorded		N		N		N		N		
Panic stop @ 10 mph		N		N		N		Not Recorded		N		N		N		N		
Belgian Blocks		N		N		N		Not Recorded		N		N		N		N		
Knee Key Test																		
5% Female	Ease	Not Recorded		Difficult		Not Recorded		Easy		Not Recorded		Easy		Not Recorded		Not Possible		
	Driving Position	Not Recorded		Abnormal		Not Recorded		Abnormal		Not Recorded		Abnormal		Not Recorded		N/A		
	Knee Distance from Key (mm)	Not Recorded		Gas - 135		Not Recorded		Gas - 100		Not Recorded		Gas - 125		Not Recorded		Gas - 232		
	Knee Distance from Fob (mm)	Not Recorded		Gas - 60		Not Recorded		N/A		Not Recorded		Gas - 50		Not Recorded		Gas - 143		
50% Male	Ease	Not Recorded		Difficult		Not Recorded		Easy		Not Recorded		Easy		Not Recorded		Difficult		
	Driving Position	Not Recorded		Abnormal		Not Recorded		Abnormal		Not Recorded		Abnormal		Not Recorded		Abnormal		
	Knee Distance from Key (mm)	Not Recorded		Gas - 170		Not Recorded		Gas - 133		Not Recorded		Gas - 125		Not Recorded		Gas - 155		
	Knee Distance from Fob (mm)	Not Recorded		Gas - 95		Not Recorded		N/A		Not Recorded		Gas - 55		Not Recorded		Gas - 100		
95% Male	Ease	Not Recorded		Not Possible		Not Recorded		Easy		Not Recorded		Difficult		Not Recorded		Not Possible		
	Driving Position	Not Recorded		N/A		Not Recorded		Normal		Not Recorded		Abnormal		Not Recorded		N/A		
	Knee Distance from Key (mm)	Not Recorded		Gas - 95		Not Recorded		Gas - 62		Not Recorded		Gas - 65		Not Recorded		Gas - 80		
	Knee Distance from Fob (mm)	Not Recorded		Gas - 20		Not Recorded		N/A		Not Recorded		Gas - 0		Not Recorded		Gas - 102		
Hang Tag Test																		
Condition Possible? (Yes/No)		Not Recorded		Yes		Not Recorded		No		Not Recorded		Yes		Not Recorded		No		
Comments		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		

Test Vehicle Information																										
Vehicle Workbook		EA					EB		EC		ED		EE		EF		EG		EH		EI		EJ			
Platform		C/K Truck					Global Mini		Gamma II		Delta II		Sigma II		Zeta		Theta		Delta II		W-Car		Epsilon II			
Program		K2XX					M2XX		T300		D1SB		GMX322		GMX551		GMT319		D1SC		GMX211		GMX351			
Model Year		2015					2017		2014		2015		2013		2014		2014		2014		2014		2015			
Make		Chevrolet					Chevrolet		Chevrolet		Chevrolet		Buick		Cadillac		Chevrolet		Chevrolet		Chevrolet		Chevrolet			
Model		Silverado 2500HD					Spark		Sonic		Verano		CTS		Caprice		Cruze		Cruze		Impala Limited		Malibu			
VIN		1GCK1WE63FF103555					KL8CJ6S8BDCM00429		1G1JG6S89E4100026		1G4P55SK5F4100032		1G6DL5E32D0122375		6G3NS5U28EL902848		3GNAL7EK4F5S00427		1G1PB55H5E7330975		2G1WASE3XE1131061		1G1TD5LXFF100005			
Mileage		Not Recorded					Not Recorded		Not Recorded		3139		20069		4685		7387		1559		1703		806			
Keyed Ignition System Information																										
Ignition Switch Part Number		Not Recorded					Not Recorded		Not Recorded		20939745		20965947		94737994		95919456		20939745		2575645		20939745			
Ignition Switch Torque (Ncm)		Not Recorded					Not Recorded		Not Recorded		27.2		17.9		10.1		10.6		27.3		11.4		27.4			
System Torque (Ncm)		17.3					18.2		15.5		36.4		20.9		13.9		10.0		31.8		22.2		30.1			
Pull-down Force (N)		Not Recorded					Not Recorded		Not Recorded		>49		>49		>49		>49		>49		40.4		>49			
Steering Column Rake Angle (deg)		37					26		27		25		25		24		31		25		35		26			
Key Angle (deg)	OFF	Not Recorded					Not Recorded		Not Recorded		-48		-38		-47		-54		-48		-15		-51			
	ACC	Not Recorded					Not Recorded		Not Recorded		3		15		0		-14		3		15		0			
	RUN	55					65		35		25		36		25		18		25		60		19			
	CRANK	Not Recorded					Not Recorded		Not Recorded		65		69		65		56		65		87		59			
Shifter Position (column/floor)		Column					Floor		Floor		Floor		Floor		Floor		Floor		Floor		Floor		Floor			
Key Position (column/dash/floor)		Column					Column		Column		Column		Column		Column		Column		Column		Column		Column			
Inertial Test																										
Key Type		Overmold 2					Overmold 2		Gen 1 Flip Key		Gen 1 Flip Key		Gen 1 Flip Key		Overmold 1 - Hole		Gen 1 Flip Key		Overmold - 15 mm Slot		Gen 1 Flip Key		Overmold 1		Gen 1 Flip Key	
Insert Type		None					None		None		None		None		None		None		None		None		None		None	
Insert Hole Size (mm)		N/A					4x6		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Key Ring Inside Diameter (mm)		13					13		25		25		25		25		25		25		25		25		25	
Number of Key Rings		2					2		1		1		1		1		1		1		1		1		1	
Special Configuration Notes		N/A				Re-test while recording acceleration data	N/A	Lock Cylinder Rotated	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Weight (lb)		0.70	0.63	0.55	0.40	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	
Cubicle @ 10 mph		N	N/A	N/A	N/A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
R&H (excluding Chatter & Angled RR)		N	N/A	N/A	N/A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
R&H Chatter (Hz MPH/3) @ 55 to 45 mph		N	N/A	N/A	N/A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
R&H Angled RR crossing @ 70+ mph		N	N/A	N/A	N/A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
Pothole #1 @25 mph		Y	N	N/A	N/A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
Pothole #2 @ 25 mph		Y	Y	Y	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
Panic stop @ 10 mph		Y	Y	Y	N	N/A	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
Belgian Blocks		Y	Y	N	N/A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
Knee Key Test																										
5% Female	Ease	Medium					Difficult		Not Possible		Not Possible		Not Possible		Not Recorded		Easy		Medium		Not Possible		Not Possible		Not Possible	
	Driving Position	Abnormal					Abnormal		N/A		N/A		N/A		Not Recorded		Abnormal		Abnormal		N/A		N/A		Not Recorded	
	Knee Distance from Key (mm)	Gas - 191					Gas - 195		Gas - 100		Gas - 140		Gas - 90		Not Recorded		Gas -130		Gas - 152		Gas - 140		Gas - 130		Gas - 80	
	Knee Distance from Fob (mm)	Gas - 89					Gas - 95		N/A		N/A		Not Recorded		Not Recorded		N/A		Gas - 70		Not Recorded		Gas - 70		N/A	
50% Male	Ease	Difficult					Difficult		Difficult		Difficult		Easy		Medium		Easy		Medium		Difficult		Medium		Medium	
	Driving Position	Abnormal					Abnormal		Abnormal		Abnormal		Abnormal		Abnormal		Abnormal		Abnormal		Abnormal		Abnormal		Not Recorded	
	Knee Distance from Key (mm)	Gas - 200					Gas - 205		Gas - 165		Gas - 155		Gas - 155		Gas - 160		Gas - 135		Gas - 216		Gas - 132		Gas - 220		Gas - 155	
	Knee Distance from Fob (mm)	Gas - 100					Gas - 105		N/A		N/A		Not Recorded		Gas - 95		N/A		Gas - 137		Not Recorded		Gas - 160		N/A	
95% Male	Ease	Difficult					Not Recorded		Not Possible		Not Possible		Not Possible		Easy		Easy		Difficult		Not Possible		Not Possible		Not Possible	
	Driving Position	Abnormal					Not Recorded		N/A		N/A		N/A		Normal		Normal		Abnormal		N/A		N/A		Normal	
	Knee Distance from Key (mm)	Gas - 125					Gas - 130		Gas - 90		Gas - 90		Gas - 100		Gas - 20		Gas - 80		Gas - 115		Gas - 70		Gas - 150		Gas - 85	
	Knee Distance from Fob (mm)	Gas - 25					Gas - 30		N/A		N/A		Not Recorded		Gas - 0		N/A		Gas - 40		Not Recorded		Gas - 89		N/A	
Hang Tag Test																										
Condition Possible? (Yes/No)		Yes					Yes		Yes		Yes		Yes		Not Recorded		Yes		No		Yes		No		No	
Comments		Not Recorded					Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded	

Test Vehicle Information									
Vehicle Workbook	EK	EL	EM	EN	EO	EP	EQ	ER	
Platform	Lambda	Gamma II	Epsilon II	D2	D2	Theta	C/K Truck	C/K Truck	
Program	GMT561	G1UC	GMX350	D2XX	D2XX	GMT177	GMT900	GMT900	
Model Year	2013	2014	2014	2015	2015	2013	2014	2014	
Make	Chevrolet	Chevrolet	Buick	Chevrolet	Chevrolet	GMC	GMC	Chevrolet	
Model	Traverse	Trax	Regal	Cruze	Cruze	Terrain	Sierra 2500HD	Tahoe	
VIN	1GNKVJDXDJ100307	3GNCJLEBXL101487	2G4GV5EXE90085EX	LSGBE5447F0990064	LSGBE5439FG000014	2GKFL2E36D60001EX	1GT12SEG1EF154450	1GNSKB060ER190422	
Mileage	20816	5088	1426	Not Recorded	821	27348	3882	988	
Keyed Ignition System Information									
Ignition Switch Part Number	20965947	94737994	Not Recorded	Not Recorded	13396112	20939745	Incorrectly Recorded	Incorrectly Recorded	
Ignition Switch Torque (Ncm)	18.6	10.5	29.0	4.0	5.0	29.2	Not Recorded	Not Recorded	
System Torque (Ncm)	21.0	14.0	38.4	Not Recorded	13.4	31.5	15.8	19.0	
Pull-down Force (N)	>49	>49	>49	Not Recorded	>49	>49	>49	>49	
Steering Column Rake Angle (deg)	26	26	27	26	24	25	32	33	
Key Angle (deg)	OFF	-38	-48	-55	Not Recorded	-38	-50	-18	-15
	ACC	8	-4	10	Not Recorded	7	0	20	26
	RUN	36	24	20	34	33	25	50	52
	CRANK	69	73	60	Not Recorded	89	64	85	91
Shifter Position (column/floor)	Floor	Floor	Floor	Floor	Floor	Floor	Column	Column	
Key Position (column/dash/floor)	Column	Column	Column	Column	Column	Column	Column	Column	
Inertial Test									
Key Type	Overmold 1	Gen 1 Flip Key	Gen 1 Flip Key	Overmold 2	Gen 2 Flip Key	Gen 1 Flip Key	Overmold 1	Overmold 1	Overmold 1
Insert Type	None	None	None	None	None	None	None	One-Piece	None
Insert Hole Size (mm)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4x4	N/A
Key Ring Inside Diameter (mm)	25	25	25	Not Recorded	25	25	25	13	25
Number of Key Rings	1	1	1	Not Recorded	1	1	1	2	1
Special Configuration Notes	N/A	N/A	N/A	Inertial Test Not Performed	N/A	N/A	N/A	N/A	N/A
Weight (lb)	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Cubicle @ 10 mph	N	N	N	Not Recorded	N	N	N	Not Recorded	N
R&H (excluding Chatter & Angled RR)	N	N	N	Not Recorded	N	N	N	Not Recorded	N
R&H Chatter (Hz MPH/3) @ 55 to 45 mph	N	N	N	Not Recorded	N	N	N	Not Recorded	N
R&H Angled RR crossing @ 70+ mph	N	N	N	Not Recorded	N	N	N	Not Recorded	N
Pothole #1 @ 25 mph	N	N	N	Not Recorded	N	N	N	Not Recorded	N
Pothole #2 @ 25 mph	N	N	N	Not Recorded	N	N	N	Not Recorded	N
Panic stop @ 10 mph	N	N	N	Not Recorded	N	N	N	Not Recorded	N
Belgian Blocks	N	N	N	Not Recorded	N	N	N	Not Recorded	N
Knee Key Test									
5% Female	Ease	Easy	Medium	Not Possible	Not Recorded	Medium	Difficult	Not Possible	Not Possible
	Driving Position	Abnormal	Abnormal	N/A	Not Recorded	Abnormal	Abnormal	N/A	N/A
	Knee Distance from Key (mm)	Gas - 133	Gas - 170	Gas - 80	Not Recorded	Gas - 70	Gas - 165	Gas - 215	Gas - 215
	Knee Distance from Fob (mm)	Gas - 66	N/A	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Gas - 139	Gas - 146
50% Male	Ease	Medium	Easy	Not Possible	Not Recorded	Easy	Easy	Not Possible	Not Possible
	Driving Position	Abnormal	Abnormal	N/A	Not Recorded	Abnormal	Abnormal	N/A	N/A
	Knee Distance from Key (mm)	Gas - 170	Gas - 200	Gas - 155	Not Recorded	Gas - 160	Gas - 178	Gas - 240	Gas - 240
	Knee Distance from Fob (mm)	Gas - 103	N/A	N/A	Not Recorded	Not Recorded	Not Recorded	Gas - 180	Gas - 175
95% Male	Ease	Medium	Medium	Not Possible	Not Recorded	Easy	Medium	Not Recorded	Not Recorded
	Driving Position	Abnormal	Abnormal	N/A	Not Recorded	Normal	Abnormal	Not Recorded	Not Recorded
	Knee Distance from Key (mm)	Gas - 89	Gas - 95	Gas - 88	Not Recorded	Gas - 85	Gas - 85	Not Recorded	Not Recorded
	Knee Distance from Fob (mm)	Gas - 22	N/A	Not Recorded	Not Recorded	Not Recorded	N/A	Not Recorded	Not Recorded
Hang Tag Test									
Condition Possible? (Yes/No)	No	Yes	Yes	Not Recorded	Not Possible	No	Not Recorded	Not Recorded	No
Comments	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded

Test Vehicle Information																			
Vehicle Workbook		ES					ET			EU			EV		EW		EX		
Platform		C/K Truck					C/K Truck			C/K Truck			Global Mini		Global Mini		Zeta		
Program		K2XX					K2XX			K2XX			M300		M2XX		GMX521		
Model Year		2014					2015			2015			2014		2017		2013		
Make		GMC					Chevrolet			GMC			Chevrolet		Chevrolet		Chevrolet		
Model		Sierra Denali 1500LD					Suburban			Yukon			Spark		Camaro SS		Camaro SS		
VIN		3GTUZWE8EG337617					1GNSKHEC2FR100438			1GKS2AKC4FR100160			KL8CF6S98EC400221		KL8CJ6S8BDCM00434		2G1FK1EJ9D9100730		
Mileage		2911					4703			2047			2080		2174		14040		
Keyed Ignition System Information																			
Ignition Switch Part Number		Incorrectly Recorded		Incorrectly Recorded		Incorrectly Recorded		Not Recorded		Not Recorded		Incorrectly Recorded		Incorrectly Recorded		Not Recorded		94737994	
Ignition Switch Torque (Ncm)		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		10.5	
System Torque (Ncm)		19.0		19.0		19.0		17.7		17.7		18.2		18.2		12.0		15.7	
Pull-down Force (N)		48.3		48.3		Not Recorded		>49		Not Recorded		>49		Not Recorded		>49		19.9	
Steering Column Rake Angle (deg)		33		33		33		35		35		38		38		25		26	
Key Angle (deg)	OFF	-14.9		-14.9		-14.9		-15		-15		-14		-14		-40		56	
	ACC	39.5		39.5		39.5		28		28		24		24		0		96	
	RUN	56.8		56.8		56.8		57		57		53		53		35		130	
	CRANK	91.6		91.6		91.6		80		80		90		90		87		169	
Shifter Position (column/floor)		Column		Column		Column		Column		Column		Column		Column		Floor		Floor	
Key Position (column/dash/floor)		Column		Column		Column		Column		Column		Column		Column		Column		Column	
Inertial Test																			
Key Type		Overmold 3		Overmold 3		Overmold 2		Overmold 2		Overmold 3		Overmold 2		Overmold 2		Gen 1 Flip Key - Edge Cut		Gen 2 Flip Key	
Insert Type		None		None		None		One-Piece		None		None		One-Piece		None		None	
Insert Hole Size (mm)		N/A		N/A		N/A		4x4		N/A		N/A		4x4		N/A		N/A	
Key Ring Inside Diameter (mm)		25		25		13		13		25		13		13		25		25	
Number of Key Rings		1		1		2		2		1		2		2		1		1	
Special Configuration Notes		Inertial Test Not Performed (Only Collected Ign Sw Acceleration Data)		N/A		N/A		N/A		N/A		N/A		N/A		N/A		Solid Mass Weight	
Weight (lb)		0.70		0.70		0.63		0.70		0.63		0.55		1.40		0.70		0.70	
Cublete @ 10 mph		Not Recorded		N		N/A		N		N		N/A		N		N		N	
R&H (excluding Chatter & Angled RR)		Not Recorded		N		N/A		N		N		N/A		N		N		N	
R&H Chatter (Hz MPH/3) @ 55 to 45 mph		Not Recorded		N		N/A		N		N		N/A		N		N		N	
R&H Angled RR crossing @ 70+ mph		Not Recorded		N		N/A		N		N		N/A		N		N		N	
Pothole #1 @25 mph		Not Recorded		N		N/A		N		N		N/A		N		N		N	
Pothole #2 @ 25 mph		Not Recorded		Y		N		Y		Y		N		N		N		N	
Panic stop @ 10 mph		Not Recorded		N		N/A		N		N		N/A		N		N		N	
Belgian Blocks		Not Recorded		Y		N		N		N/A		N/A		N		Y		N	
Knee Key Test																			
5% Female	Ease	Not Recorded		Not Recorded		Difficult		Not Recorded		Not Recorded		Medium		Not Recorded		Not Recorded		Not Possible	
	Driving Position	Not Recorded		Not Recorded		Abnormal		Not Recorded		Not Recorded		Abnormal		Not Recorded		Not Recorded		N/A	
	Knee Distance from Key (mm)	Not Recorded		Not Recorded		Gas - 178		Not Recorded		Not Recorded		Gas - 203		Not Recorded		Not Recorded		Gas - 100	
	Knee Distance from Fob (mm)	Not Recorded		Not Recorded		Gas - 89		Not Recorded		Not Recorded		Gas - 114		Not Recorded		Not Recorded		N/A	
50% Male	Ease	Not Recorded		Not Recorded		Not Possible		Not Recorded		Not Recorded		Not Possible		Not Recorded		Not Recorded		Not Possible	
	Driving Position	Not Recorded		Not Recorded		N/A		Not Recorded		Not Recorded		N/A		Not Recorded		Not Recorded		N/A	
	Knee Distance from Key (mm)	Not Recorded		Not Recorded		Gas - 254		Not Recorded		Not Recorded		Gas - 235		Not Recorded		Not Recorded		Gas - 165	
	Knee Distance from Fob (mm)	Not Recorded		Not Recorded		Gas - 178		Not Recorded		Not Recorded		Gas - 165		Not Recorded		Not Recorded		N/A	
95% Male	Ease	Not Recorded		Not Recorded		Difficult		Not Recorded		Not Recorded		Medium		Not Recorded		Not Recorded		Not Possible	
	Driving Position	Not Recorded		Not Recorded		Abnormal		Not Recorded		Not Recorded		Abnormal		Not Recorded		Not Recorded		N/A	
	Knee Distance from Key (mm)	Not Recorded		Not Recorded		Gas - 150		Not Recorded		Not Recorded		Gas - 203		Not Recorded		Not Recorded		Gas - 90	
	Knee Distance from Fob (mm)	Not Recorded		Not Recorded		Gas - 70		Not Recorded		Not Recorded		Gas - 114		Not Recorded		Not Recorded		N/A	
Hang Tag Test																			
Condition Possible? (Yes/No)		Not Recorded		Not Recorded		Yes		Not Recorded		Not Recorded		Yes		Not Recorded		Not Recorded		Not Recorded	
Comments		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded	

Test Vehicle Information															
Vehicle Workbook		EY		EZ		FA		FB		FC		FD			
Platform		Zeta		Other		Other		Delta I (A-Car)		Theta		Lambda			
Program		GMX557		Other		Other		GMX001		GMT172		GMT968			
Model Year		2008		2004		2003		2005		2014		2014			
Make		Pontiac		Saab		Saab		Chevrolet		Chevrolet		GMC			
Model		G8		9 -- 3		9 -- 5		Cobalt		Equinox		Acadia			
VIN		6G2EC57Y88L142040		YS3FH49Y841024848		YS3EB49E233010787		1G1AK52F157562218		1GNALBEK7EJ128957		1GKKVTKD7EJ100050			
Mileage		Not Recorded		105344		104261		81624		Not Recorded		Not Recorded			
Keyed Ignition System Information															
Ignition Switch Part Number		Not Recorded		12801010		4943692		23215459		10392423		Not Recorded			
Ignition Switch Torque (Ncm)		Not Recorded		Not Recorded		N/A		Not Recorded		Not Recorded		Not Recorded			
System Torque (Ncm)		Not Recorded		18.5		19.4		Not Recorded		Not Recorded		Not Recorded			
Pull-down Force (N)		Not Recorded		N/A		N/A		Not Recorded		Not Recorded		>49			
Steering Column Rake Angle (deg)		Not Recorded		N/A		N/A		20		20		Not Recorded			
Key Angle (deg)	OFF	Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded			
	ACC	Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded			
	RUN	Not Recorded		Not Recorded		Not Recorded		60		60		Not Recorded			
	CRANK	Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded		Not Recorded			
Shifter Position (column/floor)		Floor		Floor		Floor		Floor		Floor		Floor			
Key Position (column/dash/floor)		Column		Center Console		Center Console		Column		Column		Column			
Inertial Test															
Key Type		Flip Key	Rigid Key	Rigid Key - Blade Rotated 90 deg	Rigid - 18 mm Slot	Rigid - 20 mm Slot		Overmold 1 - Counterfeit	Overmold 1 - Counterfeit	Gen 1 Flip Key		Overmold 1			
Insert Type		None	None	None	None	None		None	None	None		None			
Insert Hole Size (mm)		N/A	N/A	N/A	N/A	N/A		5	5	N/A		N/A			
Key Ring Inside Diameter (mm)		25	25	25	25	25		13	13	25		25			
Number of Key Rings		1	1	1	1	1		2	2	1		1			
Special Configuration Notes		Inertial Test Not Performed	Inertial Test Not Performed	Inertial Test Not Performed	N/A	N/A		Post-Recall Ignition Switch	Pre-Recall Ignition Switch	Inertial Test Not Performed		Inertial Test Not Performed			
Weight (lb)		0.70	0.70	0.70	0.70	0.70	0.63	0.70	0.70	0.70		0.70			
Cubilete @ 10 mph		Not Recorded	Not Recorded	Not Recorded	N	N	N/A	N	N	Not Recorded		Not Recorded			
R&H (excluding Chatter & Angled RR)		Not Recorded	Not Recorded	Not Recorded	N	N	N/A	N	N	Not Recorded		Not Recorded			
R&H Chatter (Hz MPH/3) @ 55 to 45 mph		Not Recorded	Not Recorded	Not Recorded	N	N	N/A	N	N	Not Recorded		Not Recorded			
R&H Angled RR crossing @ 70+ mph		Not Recorded	Not Recorded	Not Recorded	N	N	N/A	N	N	Not Recorded		Not Recorded			
Pothole #1 @25 mph		Not Recorded	Not Recorded	Not Recorded	N	N	N/A	N	N	Not Recorded		Not Recorded			
Pothole #2 @ 25 mph		Not Recorded	Not Recorded	Not Recorded	N	N	N/A	N	N	Not Recorded		Not Recorded			
Panic stop @ 10 mph		Not Recorded	Not Recorded	Not Recorded	N	Y	N	N	N	Not Recorded		Not Recorded			
Belgian Blocks		Not Recorded	Not Recorded	Not Recorded	N	N	N/A	N	N	Not Recorded		Not Recorded			
Knee Key Test															
5% Female	Ease	Easy	Easy	Difficult	Ign Sw on Console, standard knee key test not performed. See "2014-10-08-FR1_Saab Ignition Key Evaluation.pptx" (stored in Field Response Team Work Ticket 2014-10-08-FR1 archive) for assessment of driver interaction with Ignition key.	Ign Sw on Console, standard knee key test not performed. See "2014-10-08-FR1_Saab Ignition Key Evaluation.pptx" (stored in Field Response Team Work Ticket 2014-10-08-FR1 archive) for assessment of driver interaction with Ignition key.	Not Recorded	Not Recorded	Not Possible		Medium				
	Driving Position	Abnormal	Abnormal	Abnormal			Not Recorded	Not Recorded	N/A		Abnormal				
	Knee Distance from Key (mm)	Gas - 120 Brake - 100 Relaxed - 105	Gas - 120 Brake - 100 Relaxed - 105	Gas - 100 Brake - 75 Relaxed - 65			Not Recorded	Not Recorded	Gas - 150		Gas - 133				
	Knee Distance from Fob (mm)	Not Recorded	Not Recorded	Not Recorded			Not Recorded	Not Recorded	Gas - 165		Gas - 133				
50% Male	Ease	Easy	Easy	Not Recorded			Not Recorded	Not Recorded	Easy	Easy		Easy			
	Driving Position	Abnormal	Abnormal	Not Recorded			Not Recorded	Not Recorded	Abnormal	Abnormal		Abnormal			
	Knee Distance from Key (mm)	Gas - 130 Brake - 130 Relaxed - 190	Gas - 130 Brake - 130 Relaxed - 190	Not Recorded			Not Recorded	Not Recorded	Gas - 165		Gas - 165				
	Knee Distance from Fob (mm)	Not Recorded	Not Recorded	Not Recorded			Not Recorded	Not Recorded	Not Recorded		Gas - 89				
95% Male	Ease	Easy	Easy	Difficult			Not Recorded	Not Recorded	Not Possible	Not Possible		Medium			
	Driving Position	Normal	Normal	Abnormal			Not Recorded	Not Recorded	N/A		Abnormal				
	Knee Distance from Key (mm)	Gas - 65 Brake - 45 Relaxed - 90	Gas - 65 Brake - 45 Relaxed - 90	Gas - 75 Brake - 50 Relaxed - 125			Not Recorded	Not Recorded	Gas - 85		Gas - 89				
	Knee Distance from Fob (mm)	Not Recorded	Not Recorded	Not Recorded			Not Recorded	Not Recorded	N/A		Gas - 0				
Hang Tag Test															
Condition Possible? (Yes/No)		Not Recorded	Not Recorded	Not Recorded	N/A - Ign Sw on Console	N/A - Ign Sw on Console		Not Recorded	Not Recorded	Yes		No			
Comments		Not Recorded	Not Recorded	Not Recorded	N/A - Ign Sw on Console	N/A - Ign Sw on Console		Not Recorded	Not Recorded	Not Recorded		Not Recorded			

Test Vehicle Information		
Vehicle Workbook	FE	FF
Platform	Gamma II	Epsilon II
Program	G1UB	GMX353
Model Year	2016	2014
Make	Buick	Buick
Model	Encore	LaCrosse
VIN	KL4BD76B9GBM00876	1G4GA5GR9EF173044
Mileage	Not Recorded	Not Recorded
Keyed Ignition System Information		
Ignition Switch Part Number	Not Recorded	Not Recorded
Ignition Switch Torque (Ncm)	Not Recorded	Not Recorded
System Torque (Ncm)	Not Recorded	Not Recorded
Pull-down Force (N)	>49	>49
Steering Column Rake Angle (deg)	Not Recorded	Not Recorded
Key Angle (deg)	OFF	Not Recorded
	ACC	Not Recorded
	RUN	Not Recorded
	CRANK	Not Recorded
Shifter Position (column/floor)	Floor	Floor
Key Position (column/dash/floor)	Column	Column
Inertial Test		
Key Type	Gen 1 Flip Key	Gen 1 Flip Key
Insert Type	None	None
Insert Hole Size (mm)	N/A	N/A
Key Ring Inside Diameter (mm)	25	25
Number of Key Rings	1	1
Special Configuration Notes	Inertial Test Not Performed	Inertial Test Not Performed
Weight (lb)	0.70	0.70
Cubicle @ 10 mph	Not Recorded	Not Recorded
R&H (excluding Chatter & Angled RR)	Not Recorded	Not Recorded
R&H Chatter (Hz MPH/3) @ 55 to 45 mph	Not Recorded	Not Recorded
R&H Angled RR crossing @ 70+ mph	Not Recorded	Not Recorded
Pothole #1 @ 25 mph	Not Recorded	Not Recorded
Pothole #2 @ 25 mph	Not Recorded	Not Recorded
Panic stop @ 10 mph	Not Recorded	Not Recorded
Belgian Blocks	Not Recorded	Not Recorded
Knee Key Test		
5% Female	Ease	Medium
	Driving Position	Abnormal
	Knee Distance from Key (mm)	Gas - 140
	Knee Distance from Fob (mm)	Not Recorded
50% Male	Ease	Easy
	Driving Position	Abnormal
	Knee Distance from Key (mm)	Gas - 171
	Knee Distance from Fob (mm)	Not Recorded
95% Male	Ease	Medium
	Driving Position	Abnormal
	Knee Distance from Key (mm)	Gas - 87
	Knee Distance from Fob (mm)	Not Recorded
Hang Tag Test		
Condition Possible? (Yes/No)	No	Yes
Comments	Not Recorded	Not Recorded